Dear Dr. Greatguy:

We are contacting you today to brief you on our basis for asking for a medical exemption from the immunization mandate. As we discussed during our previous telemed conversations, our family's objections are based on several independent scientific principles summarized below:

1. **The activation of T cells by antigen presenting dendritic cells defines the adaptive immune response to any respiratory coronavirus infection, and a healthy response to a respiratory coronavirus infection doesn't involve a sustained antibody response.**

   Robust T cell activation is the mechanistic basis for a successful immune response to a coronavirus respiratory infection. T cell memories are consistently built from childhood to the first proteins expressed during each coronavirus infection. These proteins happen to be nonstructural proteins involved in the crucial processes of hijacking your cellular machinery and enlisting it in viral production (ORF1ab polyprotein and N protein). The ORF1ab polyprotein and N protein sequences are HIGHLY conserved across coronaviruses, and our previous T cell immune memory library to these coronavirus proteins explains the WIDE spectrum of immune responses and preponderance of successful outcomes in healthy humans around the world. Several studies have confirmed that the natural immune response to SARS-CoV2 is NOT NOVEL but derived from these previous molecular memories. It has also been consistently demonstrated that exposure to infected individuals (cohabitation) is sufficient to stimulate robust T cell and B cell memories equivalent to symptomatic infection. Furthermore, the danger posed to healthy, well-nourished adults is minimal. Numerous studies have identified deficiency in vitamin D, age, obesity, and other comorbidities as being prime determinants of outcome. It is not a novel virus for which we have no previous immunity despite what we were told for nearly all of 2020. The insistence that antibodies specific for a coronavirus spike protein would be indicative of enduring immunity is a 100% unproven hypothesis in existence since the 80's and is borne of confounding it with the observation that serology can indicate previous exposure and sterilizing immunity *to other viruses*.

   The 'investigational vaccines' do not generate broad T cell memory to the whole virus, and instead force the immune system to build redundant memory to a single patented spike protein from 2020 under the same false pretense that antibodies to this protein will generate immunity to a coronavirus. It does not. The insistence on spike-focused antibody response as correlative for protective immunity is what we—as trained biologists—consider to be snake oil salesmanship, misleading and inaccurate. There are dozens of papers showing this does not work in any animal or livestock model. Current serology data also suggest that the immune response to the 'investigational vaccines' is also derived from previous molecular memories, hence the immediate predominance of IgG and IgA in the antibody compliments produced. In the worst-case scenario, the 'investigational vaccines' could be forcing an affinity enrichment of previous memory B cell populations to the 2020 spike S1/S2. The knock-on unforeseen effects here could have devastating consequences for all subsequent coronavirus infections regardless of the specific strain (see #3). Redundant non-neutralizing 2020 S1 spike specific antibodies may be all that these new immunizations can produce considering the mutations selected in the Delta variant S1.

2. **The 'investigational vaccines' produce non-sterilizing immunity that allows for the reinfection of immunized individuals.**

Leaky vaccines have been shown to enrich for vaccine escape and viral virulence in livestock and laboratory models of viral evolution. There is now overwhelming direct genetic evidence of this happening within the most thoroughly immunized populations around the world.

Mechanistically this likely occurs in the case of SARS-CoV2 because during mRNA transfection, the S1 subunit of the spike doesn't not remain attached to the cells expressing it, but instead goes into circulation after furin cleavage. The S1 subunit has been shown to be in circulation for up to 14 days after injection. There is no data quantifying the amount of S2 expressed after injection, but it does not appear to circulate. The highly variable amounts of circulating S1 protein coupled with the random distribution of S2 expression throughout the body leads to a highly unpredictable immune response to both the viral proteins AND the cells expressing them. Most of these responses will not reduce viral replication during subsequence infection, and many could be maladaptive (see #3).

I along with other biologists, doctors, and immunologists with credentials more extensive than my own predicted months ago that the non-sterilizing aspect of the 'investigational vaccines' would result in imbalanced immune pressure on the spike protein. The presence of the imbalanced immune pressure on S1/S2 has become evident in the nextstrain.org data. An analysis by Trevor Bedford's lab indicates that the S1 protein has started to change at an unnatural evolutionary rate. The separate yet recurrent emergence of specific spike variants that show temporal and geographic coincidence with 'investigational vaccine' trials suggest that our predictions of vaccine escape were correct. I would be happy to show this data to you and explain any aspect further if unclear.

Breakthrough infections of variants of concern in subpopulations of spike immunized are direct evidence of viral enrichment for 'investigational vaccine' escape. The preponderance of dangerous COVID and related respiratory and viral disease is currently in the mRNA transfection immunized populations around the globe, and these observations correlate best with populations with the higher immunization rates. This is in fact evidence of the predicted enrichment for virulence already happening but frankly dangerously underreported here in the USA. Under no circumstances should a therapeutic cause an increase in case fatality rate, yet this is a consistent trend around the world.

3. **Antibody dependent enhancement (ADE*) is a suite of maladaptive consequences known to occur when immune systems make suboptimal antibodies to epitopes that do not help stop infection.**

The 'investigational vaccines' force the immune system to focus on S1 and S2 proteins as the source of all new epitope generation and previous epitope affinity selection. Given that a.) all previous known examples of ADE in other viruses occur as a result from non-neutralizing antibodies, and b.) the 'investigational vaccines' produce as much as 80% non-neutralizing antibodies, it appears to trained biologists and other doctors that the focus on spike protein targeting antibodies is nothing but a marketing gimmick with a hidden but known downside forthcoming. If we are also unwittingly resetting previous immune memory to other coronaviruses by overactivation of previous B cell memory, the situation will be worse yet. And we do not know.

**It should be noted here that ADE will be difficult if not impossible to differentiate from 'breakthrough infections' in future waves without rigorous molecular investigational techniques heretofore not applied in this pandemic.*

4. **The 'investigational vaccines' from Pfizer, Moderna, AZ, and J&J are '*transfections*' or *'transformations'*.**

For decades, academic research scientists around the world have used commercial products to express mRNA in mammalian tissues via direct injection, electroporation, gold particles, and even lentiviruses, adenoviruses, and even rabies virus. In all cases, this is termed 'transfection' (mRNA) or 'transformation' (DNA viruses). In fact, these products are still sold under the generic biological descriptions of transfection and transformation because these are the correct terms. The 'investigational vaccines' currently being mandated are therefore simply transfections and transformations being reclassified for legal reasons. As you are aware, there is no legal liability for any vaccine producer in the USA.

Vaccines by medical definition (up and until 2020) contain an *antigenic target* and a *chemical adjuvant*. The antigenic target is the virus or compliment of viral proteins that is the intended target of the immunization. The adjuvant is the chemical irritant that attracts the attention of the immune system to site of injection. The 'investigational vaccines' do not contain a chemical adjuvant to attract the attention of the immune system. Manufacturers are using a basic transfection methodology and calling it a 'vaccine'. This is disingenuous at best and has been permitted and exacerbated by the WHO, CDC, NIH, etc. with full knowledge that there is no methodological or biological equivalence here. Both the WHO and CDC have made significant documented changes to their precise published language used regarding 'vaccines' during the pandemic.

To expand on this, the proprietary commercial trade secret part of these new products is the insertion of immunogenic short sequences in the S2 portion of the spike protein to attract the immune response where there is no adjuvant present. Manufacturers have given the FDA no evidence that this methodology is an immunologically sound idea, and no data is being collected to verify either way. This is the reason that all the ingredients have still not been revealed: Manufacturers do not want to release the trade secret that they claim 'investigational vaccines' don't need an adjuvant. The assertion that the lipid nanoparticle serves this purpose is also demonstrably false as evident in nearly 20 years of previous research into their use.

The FDA has been briefed on this commercially protected assertion without basis in biological observations, and it is in fact a false assertion implying an effectiveness of their products that has in no way been measured or proven. Therefore, it is fraudulent to claim something is safe and effective when all previous research suggests otherwise and is being actively ignored. *As a legal sidebar, one reason the 'investigational vaccines' will not be updated for newer strains of interest is precisely because the legal aspects of their global intellectual property would all need renegotiation—they all use the same spike protein IP owned by Moderna and NIH.*

5. **The 'investigational vaccines' express the very protein thought to be the source of many or all of the severe symptomology associated with COVID-19.**

COVID-19 is a disease whose worst symptoms are caused by the bioactivity of the SARS-CoV2 spike protein, including clotting, myocarditis, sudden onset autoimmunity, etc. Unlike other coronaviruses, the spike protein of this virus not only is responsible for viral cell entry, but also a whole host of other symptoms thought to be caused by the consequences of circulating S1 protein and the immune responses to it. The parallels between the many side effects of the 'investigational vaccines' (that are seen in healthy, younger individuals from demographics that

we know have near zero danger for severe COVID) and the effects of severe COVID, along with the ever-faster waning of any measurable effects of the transfections should be obvious warning signs to doctors like you that something is amiss with this health policy.

In summary, the widely popularized idea of the 'need' for boosting further via additional S1/S2 transfections will seem reasonable to all citizens (including doctors, nurses, and scientists of all fields) that don't understand how these transfections and natural immunity work.

The natural immune memories we build to coronaviruses avoid overemphasizing late expressed structural proteins like the spike and instead focus on early expressed, nonstructural, functionally constrained proteins with the goal of stopping viral replication as early as possible, NOT the neutralization of circulating virus. This important difference is the crux of the threat these 'investigational vaccines' create for healthy adults—*and most certainly healthy children*

There is no epidemiological data to support the near hysteria promoted on television and Facebook about a 'need' get everyone transfected down to 6 months of age, nor is there any biological or safety data to back up their encouragement of their use by pregnant women (who aren't allowed cosmetics or unpasteurized cheeses). These facts and the contents of this brief notwithstanding, members of the CDC, NIH, and WHO continue to make statements to the contrary.

The disconnect between our public health authorities and the underlying biology should be an indication that a PAUSE is needed. Instead, it seems somehow to have inspired a rush to blind conformity without informed consent, rigorously enforced by social pressure and media messaging from the very top levels of governments around the world.

I would be more than happy to further expand on the above assertions. This is by no means an exhaustive expression of the depth or breadth of our objections to this mandate as equivalent to any other mandated immunizations. We are prepared to provide an exhaustive bibliography of the primary literature supporting all the statements made in this brief. Please just let us know.

Thank you for supporting our family during this difficult and confusing time. I hope that this document will help you to better understand our objections, and more importantly that this summary will help you to better serve your patients in the future.

Sincerely,

Jonathan Jay Couey, Ph.D.

My Biologist Spouse, Ph.D.

Addendum: As of October 4, 2021, Sweden has discontinued use of Moderna specifically because of cardiac risks to younger people. Sweden has never used masks in schools. Sweden never locked down, nor have they pushed 'investigational vaccines' for months. They currently have FAR fewer COVID deaths than most countries that "threw the kitchen sink" at the problem in 2020. This is a highly significant benchmark ignored by everyone that should not be ignored by you.