November 15, 2021

Dear Mr. Ian J. Perry, Lawyer, Perrys LLP,

With respect to the case of the National Organized Workers Union (Applicant) and Sinai Health System (Respondent) that is before the Ontario Superior Court of Justice (Court File No. CV-21-00659161-0000), I received a motion record of the responding party. Please find attached my responses to aspects of the reports that were submitted as part of this motion record.

Sincerely,

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1. Report written by Dr. Peter Juni (Tab 2, pages 287-486)

Section 4 (page 289)

General comments: Not a single citation was provided in this section. As a scientist who follows the scientific method, I focus on debating data-backed facts, not personal opinions. Science demands that personal beliefs be set aside. To ensure objectivity, facts must be countered with facts.

"My opinion is that the COVID-19 vaccines currently approved and in use in Canada are safe for use by all persons".

Response: This does not account for the fact that the recommended use of AstraZeneca's COVID-19 vaccine program was withdrawn as a first-dose regimen after Canada relied on many other countries to identify the link between this inoculation causing potentially fatal blood clots[1]. Indeed, several Canadians died from blood clots after receipt of this vaccine[2-4]. After a risk-benefit analysis, this vaccine was ultimately declared to be too unsafe for Canadian adults compared to their risk from SARS-CoV-2, which is the causative agent of COVID-19 in a subset of people. Specifically, the publicized risk of blood clotting was declared to be one out of every 55,000 people inoculated[5]. Although not acknowledged in Dr. Juni's report, this was covered on page 297 of my affidavit. As discussed on page 270 of my affidavit, this risk of potentially fatal blood clots was known prior to Canada authorizing the use of the AstraZeneca vaccine[6] and a warning from experts was ignored.

Also missed, was the fact that Public Health Ontario withdrew their recommendation for using Moderna's COVID-19 inoculation in young males because the risk of the vaccine causing damage to their hearts by conditions such as myocarditis (heart inflammation) was deemed to be excessive at an incidence of one out of every 5,000 immunizations[7]. Notably, due to under-reporting of adverse events in Canada, the publicized risks of harm from COVID-19 vaccines are likely under-estimated[8]. This was covered on pages 300-301 of my affidavit. Remarkably, Pfizer's COVID-19 inoculations are still being recommended for young males, despite it being publicly acknowledged to damage the cardiovascular system in one out of every 28,000 of those immunized[9]. Remember, this is likely an underestimate of the problem, and even if it wasn't, this risk of a potentially fatal medical condition exceeds the 1:55,000 risk (for the AstraZeneca inoculation) that was deemed to be too high for all Canadian adults, including the frail elderly, who are at much higher risk of harm from COVID-19.

As such, the statement that "the COVID-19 vaccines currently approved and in use in Canada are safe for use by all persons" is verifiably untrue.

Note: In this section and many others, I directly addressed issues that Dr. Juni raised. However, he consistently failed to acknowledge this fact. I question the thoroughness with which my report was read.

"vaccines are the most effective way to reduce the risks and transmission of the virus causing COVID-19"

Response: This statement is true of good-quality vaccines. It is important to note that the very definition of a 'vaccine' had to be altered during this declared pandemic to include the currently available inoculations. Indeed, until very recently, a vaccine could not be defined as such unless it protected against transmission of the disease-causing agent. The reason why so many scientists and physicians do not like to apply the term 'vaccine' to the currently available inoculations is because they, at best, merely blunt the severity of disease. There is an excellent explanation of what the true definition of a vaccine was based on patent laws (*i.e,* patents were not issued to manufacturer's claiming they had a 'vaccine' if it failed to prevent transmission). This explanation can be found in this paper by Ron Kostoff, et. al[10]. The current COVID-19 inoculations have failed miserably when measured against the traditional definition of a vaccine. They fail to prevent transmission. In fact, emerging data demonstrate that double 'vaccinated' individuals can transmit viral loads equivalent to those who were not vaccinated[11]. Notably, all historically mandated vaccines met the traditional definition of a 'vaccine', which means that they protected against transmission of disease, which means they worked for their intended purpose. Based on basic immunological principles, it is not surprising that the current inoculations fail to prevent transmission. They are injected into the shoulder muscle, which tricks the body into thinking it is fighting against a systemic infection. Antibodies induced against systemic infection will preferentially be released into the lower lungs, not the upper airways. This is an attempt to protect a virus from getting into the blood where it can disseminate throughout the body. In the absence of antibodies in the lower lungs, viruses can fairly readily get into the blood by taking advantage of the weak physical barriers that are present to facilitate gas exchange. This is why some individuals who have been inoculated might have disease severity blunted (because they have sub-optimal protection in the lower lungs where SARS-CoV-2 can cause the most harm). However, these same individuals fail to control viral replication in the upper airways because an intramuscular route of administration fails to confer protection in this location. This is unlike naturally acquired immunity in which a person is infected via the upper respiratory tract. Unlike with the inoculations, people who recovered from an infection with SARS-CoV-2 will have robust immunity in the upper and lower airways because the immune system will have been programmed to protect against viral entry via the airways. Importantly, SARS-CoV-2 particles that can potentially infect others is shed from the upper airways, not the lower airways, hence the reason why people who received COVID-19 inoculations can still readily transmit the virus.

Another key reason why the current COVID-19 inoculations are ineffective is because their duration of immunity (*i.e*, the length of time that a person is 'protected' to some degree against SARS-CoV-2) is extremely short; perhaps as little as six months[12,13]. This is extremely important in the context of vaccine mandates. COVID-19 inoculations that fail to stop transmission and that have inappropriately short durations of immunity can never be used as tools to achieve the ultimate goal of herd immunity. The ever-increasing risk of breakthrough infections, which is a clear indicator of a poor quality 'vaccine', even had to be admitted by Pfizer[14]. And this does not even account for the fact that the current COVID-19 inoculations have largely become outdated in the context of the now-dominant delta variant of SARS-CoV-2, which can evade much of the antibody response[15]. This highlights the problem with the COVID-19 'vaccines' targeting a single protein on the virus, unlike naturally acquired immunity that confers protection against many proteins in the virus. The very broad immunity conferred by natural infection is much more difficult for a virus to evade because they would have to change much more of their physical structure to escape. It is important to remember that the purpose of a vaccine it to try to simulate a natural infection but without a person having risk experience the disease associated with an infection. However, the current COVID-19 inoculations fail to come close to recapitulating a natural immune response to SARS-CoV-2. Segregating people who are not "fully vaccinated" from those who are makes no sense then the latter are not protected against transmitting the virus. In fact, one could argue that the "fully vaccinated" might represent a greater risk because they may be more prone to coming in to contact with vulnerable people, such as the frail elderly, with a false sense of being unable to transmit SARS-CoV-2 to them. Further, the short duration of immunity conferred by the current COVID-19 inoculations means that the little protection they do offer will rapidly disappear, thereby necessitating ongoing boosting. Indeed, Canada has already started promoting third doses in less than one year. In Israel, it has already been declared that vaccine passports will need to expire six months after the last receipt of a COVID-19 inoculation to recognize that those individuals will otherwise be completely unprotected. Notably, Israel's population is among those with the highest proportion of people who have been fully 'immunized', yet these inoculations have failed to control the spread of the delta variant of SARS-CoV-2, which is running rampant in that country. This fact is a vital consideration for vaccine mandates. The reality the current COVID-19 inoculations will never be limited to two doses. If this is the only approach that will be taken to exit from the declared pandemic, then we will be stuck in an endless cycle of administering booster doses of 'vaccines' that are failing to function as traditional vaccines and will, therefore, can not serve the goal of herd immunity. Here is an important rhetorical question: If immunity wanes in ~six months, how likely is it that we can get the global population fully 'vaccinated' within less than six months? Because this is exactly what we would need to be able to achieve to have any chance at herd immunity with these current inoculations. If anyone is not

fully 'vaccinated' within six months, those who were initially inoculated will be unprotected and we will have to start the vaccine rollout all over again. Worse, even if we could get everyone in the world inoculated within a six-month window, the evidence shows that this will not stop transmission and those who cannot never be vaccinated properly due to having immature or senescent immune systems or being immunosuppressed will forever remain at risk. **No vaccine should ever be considered for a mandate policy unless it meets the traditional definition of a vaccine** (*i.e*, it confers long-lasting sterilizing or near-sterilizing immunity and can, therefore, prevent transmission for a long period of time). For example, mandated childhood vaccines work extremely well. They protect against transmission, usually for the life of the individual (*i.e*, boosting is usually never required). Although not usually mandated, vaccines for the purpose of traveling are another great example of what a vaccine is supposed to be. a physician administers a vaccine against an exotic pathogen and then, rather than discouraging the patient for traveling to the endemic region, they encourage them to go. And the vaccinated individual then pays money to enthusiastically enter the 'danger zone' where the pathogen is endemic. This is done because the inoculations work as per the traditional definition of a vaccine. **An inoculation that results in ongoing requirements to limit contact with others, limit travel, mask, physically distance, *etc*. is not remotely like what we traditionally called a vaccine**. **The lay public needs to realize that the current use of the term 'vaccine' is not equivalent to what they historically understood a vaccine to be**. It is like comparing apples to bananas.

Section 9 (page 290)

"Multiple trials and observational studies, which I have read and analysed, clearly indicate beyond any reasonable doubt that COVID-19 vaccines administered in Canada are both safe and effective"

Response: It is inappropriate for a scientist to make broad-reaching statements in the absence of demonstrable scientific evidence. Not a single citation was provided. This is akin to saying: "because I say it is so, it must be so". This is not how science is to be practiced. Where are the facts to back up this statement? As a scientist, I am willing to debate facts. Statements like these carry no weight in the scientific community.

Section 10 (page 290)

Response: Again, a statement is made with no citations. As a scientist, it is frustrating to be asked to respond to comments made by another scientist that lack any scientific evidence.

Section 11 (page 290)

"a vaccinated person is much less likely to transmit COVID-19 to others"

Response: I provided direct contradictory scientific evidence against this statement in my response to section 4, above.

Section 12 (page 290)

"Vaccines are also safe. We know from the history of vaccines in general that any potential safety signals relating to a vaccine will typically be evident within 60 days after the vaccine is administered."

Response: With respect to vaccines, as per the traditional definition, being safe, I wholeheartedly agree. Traditional vaccines that have been mandated went through the traditional clinical trial process, with not attempts to accelerate them to warp speed. The data for them have demonstrated that they have excellent short and long-term safety profiles, and they are effective at preventing transmission of the targeted disease. However, one cannot rely on the excellent track record of traditional vaccines and extend this as an assumption for the current COVID-19 inoculations. Another assumption has been made that safety signals will "typically" be evident within 60 days of administration of a vaccine. Comparing traditional vaccines to the current inoculations is like comparing apples to bananas. We are dealing with novel technologies that are nothing like traditional vaccines. It is highly inappropriate to take advantage of the incredible track record of traditional vaccines and try to apply that to the current COVID-19 'vaccines'. I provided a plethora of evidence in my affidavit to demonstrate acknowledged and emerging safety signals and highlighted numerous legitimate new safety questions based on solid scientific evidence. I also highlighted where corners have clearly been cut in terms of testing for safety and efficacy. None of this was acknowledged nor debated with facts in this expert's report.

Section 13 (page 291)

"the risk of myocarditis (an inflammation of the heart muscle that can lead to heart attack or stroke) is approximately 10 to 50 times greater in persons who are infected with SARS-CoV-2 and have COVID-19 than those who are protected through vaccination."

Response: This contradicts the fact that Ontario stopped recommending Moderna's 'vaccine' for young males and the admission that Pfizer's vaccine causes this issue in 1:28,000 young males, which a far higher incidence than what warranted suspension of the AstraZeneca 'vaccine' in blood clots in older adults at greater risk from COVID-19.

Section 16 (page 291)

"The report indicated that there is now "conclusive evidence" that COVID-19 vaccines are highly effective and safe, and that the risks of serious side effects from vaccines are "vanishingly low"."

Response: This report was clearly inaccurate on the basis that the Moderna 'vaccine' was suspended for use in young males because it was causing more harm than good. By following the accumulating science, I was able to predict this outcome months in advance (please refer to Exhibit A in the respondent's report). The document that was provided as a reference fails to explain the plethora of concerns and evidence raised in my affidavit, including all those that post-dated the response to the Premier.

Section 18 (page 292)

"Finally, the Advisory Table emphasized that vaccine mandates for healthcare workers are not new, and have been in effect across Canada for more than two decades."

Response: With all due respect, this is an egregious statement to make. As already discussed in my affidavit and extensively in this current response document, the current COVID-19 inoculations are nothing like the traditional vaccines that have been mandated. I have no issues with previously mandated vaccines. They met the original definition of a vaccine. I can't emphasize enough that the definition of a vaccine was recently changed to allow that term to be applied to the current inoculations. It is completely inappropriate to make assumptions about the current inoculations based on the wonderful track record of a completely different set of technologies. This is akin to saying that 'flying helium-filled airships like the Hindenburg must be safe because balloons at birthday parties have an incredible track record of both safety and enjoyment". Vaccine mandates are, indeed, not new for healthcare workers. For example, I had to be vaccinated against the rabies virus before I could work in the post-mortem room at my academic institution where there is the potential to come into contact with rabies-contaminated tissues. The rabies vaccine works exactly like a vaccine is supposed to. It protects against infection and transmission of the rabies virus. It also provides long-lasting protection. I have not required a booster in over two decades since my initial immunization. Because of this, I am actively encouraged to 'enter the danger zone' where the rabies virus may be present to engage in my work. What is notable about this, is that showing evidence of immunity is sufficient. After all, that is the goal of vaccination. This is of course, because even vaccinated people can fail to respond in some cases; they receive a dose via a needle but don't end up with any immunity. On this basis, a certificate indicating that an injection was given is not proof of immunity. Instead, my academic institution offers annual testing for the presence

of rabies-specific antibodies. Demonstrating the presence of a protective antibody titer is proof of immunity. Interestingly, even though I am required to be vaccinated against rabies, my institution will not pay for me to get boosted whenever I want. Vaccination against rabies is expensive (~$1,000), so my institution will only authorize a booster if I demonstrate that my antibody titer has dropped below what has been determined to be a protective cut-off. As one can see, mandating true vaccines for medical workers makes sense. The current COVID-19 inoculations, however, do not fit this traditional definition and, therefore, should never be mandated.

Sections 20-24 (pages 287-292)

Response: I fully explained in my affidavit exactly why the rapid antigen tests being used in Ontario are a complete and utter failure in the context of asymptomatic (also known as healthy) people. The kits were designed, tested, and approved for use as diagnostic aids in symptomatic individuals. In my affidavit I explained the massive flaws with how the RT-qPCR testing has been used in Ontario to diagnose 'cases' of COVID-19. I also debunked the fallacy of the concept of asymptomatic transmission being a significant driver of the spread of SARS-CoV-2. The sum total of this messaging is that rapid antigen testing of asymptomatic people is useless in promoting public health. Instead, asymptomatic (*i.e*, healthy) people should be allowed to in the workplace. They should stay home if they develop symptoms of an infectious disease (this should always be practiced as a form of public hygiene) since this is when they are at risk of transmitting a virus. And it is when they are symptomatic that they should use the rapid antigen test to gain information about the potential for the disease to be COVID-19. Based on the science outlined in my affidavit about rapid antigen testing, one can make an argument that using these tests in symptomatic people would like result in a much more accurate indication of the number of cases of COVID-19 than the inflated numbers generated by misusing the RT-qPCR test. To highlight how inappropriate it is to conduct rapid antigen testing in asymptomatic people, here is non-sensical contradictory text taken directly from the consent form that everyone needs to sign prior to being tested at a Shoppers Drug Mart pharmacy. When reading this, one needs to remember that the province of Ontario only allows asymptomatic people to take these tests…

CoV-2. The Patient and/or their agent further agree and acknowledges that: (i) the Screen has only been tested on and approved for symptomatic individuals; (ii) there is no evidence to suggest that the Screen is effective on asymptomatic individuals; and (iii) the absence of a preliminary positive screening result does not signify the absence of SARS-CoV-2. As such, The Patient and/or their

Sections 28-29 (pages 294-295)

"Dr. Bridle selectively cites a single authored controversial review by Ioannidis to suggest that the infection fatality rate (IFR) of SARS-CoV-2 is 0.15%.10 I do not agree this this assertion."

Response: Any article that disagrees with one's personal point of view could subjectively be labeled as 'controversial'. Is Dr. Juni in disagreement with the long-held tradition of scientific peer review of published papers? The paper that was cited went through the same rigorous process of peer review that any other published paper goes through. This is part of the scientific method. As a review paper, it encompasses all the relevant information up to the point of being submitted to the journal. Subjective statements about the perceived amount of controversy or lack thereof for an article is not helpful to the scientific process. Instead, they are risk of giving the perception of elitism. Interestingly, a key citation that was provided by Dr. Juni was authored by Dr. David Fisman, a former member of Ontario's Science Table (citation #12). What is of major concern with this publication is the fact that the epidemiological model used to draw the conclusions was not disclosed. This makes it impossible to confirm or refute the findings. It is inappropriate to publish results without disclosing all the materials and methods to the reader. Science relies on others having the opportunity to attempt to recapitulate the findings. This is particularly important for any mathematical models, since they are only as good as the data and assumptions plugged into them. Throughout the declared pandemic the application of predictive epidemiological models to formulate policies has been less than impressive based on their track records of consistently failing to match the real outcomes.

Sections 30-34 (pages 295-296)

Response: For every one of these sections the message is the same: 'Dr. Bridle said [fill in the blank] but I disagree [with zero citations given]. I am unaware of any valid studies to support Dr. Bridle's statement, despite the fact that he cited hundreds of peer-reviewed scientific publications in his affidavit and/or it is at odds with what I [that is, Dr. Juni] declare to the international consensus [with the only citation being a single paper about masking; which is in contrast to the numerous citations in my affidavit]". With all due respect, these responses are nonsensical. They carry absolutely no scientific weight. Like in a court of law, scientists are compelled to make decisions based on the weight of the evidence. With respect to Dr. Juni's supporting evidence and that provided in my affidavit, I think the weight of the evidence speaks for itself.

Section 35 (page 296)

Response: With respect to my comments about the risk of harm from vaccine-induced expression of spike proteins in people who receive a COVID-19 inoculation, it is notable that Dr. Juni cherry-picked a single issue. There are numerous safety concerns about the spike protein as a harmful bioactive agent in the human body. These were covered extensively in my affidavit, backed up by numerous peer reviewed scientific studies. But Dr. Juni claimed a lack of awareness of relevant 'credible' evidence. Repeatedly, I see evidence that makes me question the thoroughness with which he read my affidavit. He seems to be unaware of the bulk of what I wrote. It is also inappropriate for a scientist to simply refer the reader to so-called 'fact checkers'. One must wonder why he felt uncomfortable explaining the science himself. And on what basis does he deem the conclusions drawn by 'fact checkers' to be true and mine are not? Absolutely no rationale was given for this. It is important for the court to know how 'fact checking' works. Usually, I receive an email requesting a response the same day or the 'fact check' will be published without my input. First, it is unfair for a professional to be asked to drop their extensive workload to meet an unrealistically short deadline. Second, in almost every case, I haven't seen the requests until well after the deadline. This is due to the massive numbers of emails that I receive on a daily basis from members of the public. My inbox currently has ~20,000 unread emails despite me going through hundreds every day. The 'fact checkers' are often anonymous and many of them have questionable qualifications (I found out that one 'fact checker' was a postdoctoral trainee in another field of study in a country on the other side of the world). If Dr. Juni had read my affidavit, he would have seen that I have addressed every single 'fact check' that I am aware of in the context of various media commitments. For example, in a video that can be found here: https://rumble.com/vilrsj-doctor-talks-10-dr-byram-bridle-returns-fire-to-critics.html I was 'walked through' the libelous website that was set-up to impersonate and defame me (byrambridle.com). I addressed every concern that was raised. I simply do not have the time to address every single one in the context of this response document but am happy to discuss any 'fact checker' comment that exists. The 'highlight' of Dr. Juni's 'fact checker' reference was when the author of one of the papers that I cited claimed that I misunderstood their paper. The reality is, based on the lack of immunological expertise of the author, they failed to recognize the limited context of their own study. This was dealt with on page 107 of my affidavit, as well is in Appendix 3 of my affidavit. The onus is on Dr. Juni to utilize his own expertise in immunology and virology to explain how I am wrong.

Section 36 (page 296)

Response: Dr. Juni disagreed with my statement that "the sum of the data indicate that pregnant females are not at enhanced risk of severe outcomes from infection with SARS-CoV-2 compared to non-pregnant females." Again, he failed to explain in

his own words how I was wrong. He relied on citing one of the Science Briefs of the Ontario COVID-19 Science Advisory Table. This is akin to admitting 'I don't know why he is wrong, but he must be wrong because these people say so'. Of note, the science brief predates most the science that I presented on this topic in my affidavit. In other words, he has cited out-of-date information and failed to address how the plethora of more recent scientific findings are invalid.

As an important update, pages 322-345 of my affidavit represented a manuscript on which I was a co-author. It described the lack of safety data and many remaining questions about the potential impact of the current COVID-19 inoculations on developing fetuses and neonates. At the time of writing the affidavit, a revision had been requested by the managing editor. I am pleased to report that this manuscript has completed the independent scientific peer review process and has now been accepted for publication. It contains 156 citations. This is one example of the cutting-edge science that Dr. Juni failed to address.

Section 37 (page 296)

"Dr. Bridle states that "COVID-19 vaccines may have the potential to cause long-term neurological disease." This statement is at odds with the international scientific consensus. I am not aware of any credible evidence that would support such a statement."

Response: Dr. Juni is commenting on a manuscript that I just submitted for scientific review. It was presented on pages 360-367 of my affidavit. Therefore, how could there be any international scientific consensus on what I wrote? He is the first scientist to review the manuscript. Notably, I provided 18 scientific citations in that section of my text, so the only way Dr. Juni could be unaware of any credible evidence is if he failed to read that portion of my affidavit.

Dr. Juni's CV

Comment: Dr. Juni appears to have an excellent track record as an epidemiologist. Indeed, there is a plethora of evidence that he has deep expertise in this area. He should be commended for his many successes in the field of epidemiology. In stark contrast, his CV suggests that he lacks both breadth and depth of knowledge in the fields of immunology and virology. Vaccinology is a sub-discipline of immunology. The average person does not realize that Medical Doctorate programs include very few lectures on immunology and virology. For example, in Ontario, the average MD program includes only ~8-12 lectures in immunology. In fact, the average physician has much less training in these fields than the average graduate of a Bachelor's of Science program that includes at least one undergraduate immunology course (~30 lectures). As such, I question Dr. Juni's ability to critique complex mechanisms underpinning the immunological sub-discipline of vaccinology. Indeed, the

repeated lack of presentation of citations, lack of original scientific explanations, and deferrals to others, including anonymous ‘fact checkers’ are suggestive of a discomfort with the subject matter being discussed. Matters related to vaccines should be left to the immunologists with deep expertise in this field.

2. Report written by Ms. Karen-Anne Thomson (Tab 3, pages 487-563)

Page 488: “As such, I have knowledge of the matters deposed to herein, unless stated to be based on information and belief, in which case I have stated the source of the information and verily believe it to be true.”

Response: I was rather shocked to see this avidavit and an attestation to have knowledge of the relevant matters and the ability to differentiate truth from untruth in my affidavit. Unfortunately, Ms. Thomson did not appear to have submitted a CV for me to be able to adequately evaluate her expertise in immunology and virology. I will have to trust the court to evaluate this and determine whether she is an appropriate expert for rebutting an expert in vaccinology. Indeed, she would need to have deep expertise in vaccinology to be able to decide that the science in my report is superseded by quotes from 'fact checkers'; many of whom were anonymous in her documents. In other words, how did she know that 'they' were right, and I was wrong? She failed to provide any reasoning for this.

General comments: As noted in my response to Dr. Juni, I dealt with the 'fact-checker' argument head-on in my report. Ms. Thomson, however, failed to make any reference to that, nor stated how I failed to address her arguments in that regard. It makes me question how thoroughly she reviewed my affidavit. I directly tackled the primary 'fact-check' that was used against me from among her selected 'fact checkers', in which an author of one of the papers that I cited made the erroneous conclusion that their paper did not support what I was saying; the author of the paper was, in fact, wrong because they are not an immunologist and failed to recognize the limitations of their own study. This is covered in detail in my affidavit, including the main text and appendix 3.

I also noticed that Ms. Thomson’s affidavit did not state what the scope of her opining was supposed to be. On the basis of what was presented, I assume it was supposed to be attempted defamation. Since Ms. Thomson failed in every case to explain in her own words why any of the scientific information that I presented in my affidavit was wrong, I will restrict my direct response to a single example that highlights the imbalanced nature of her research…

In Exhibit “F”, Ms. Thomson presented an open letter that was signed by 88 of my colleagues at the University of Guelph. Presumably, she was trying to use this to suggest that I do not know what I am talking about with respect to vaccines. Interestingly, her research failed to unveil the widely available open letter that responded to my colleagues at the University of Guelph. It noted that the original letter was defamatory. It also provided a lot of sound scientific citations, with full explanations as to why my messaging about the current COVID-19 inoculations was correct. Notably, the original letter was very much lacking in terms of scientific integrity. It failed to cite and explain the peer-reviewed scientific literature. Instead, it relied heavily on citing websites and comments from so-called ‘fact checkers’. Notably, that responding open letter in my defence had ~8,500 signatories from around the world versus 88 on the original defamatory letter. That is 100-fold more signatories. When both the legal and scientific worlds make decisions based on the weight of the evidence, the letter that carries the most weight becomes obvious. I have appended a copy of the open rebuttal letter to this report (following the references below).

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OPEN LETTER IN SUPPORT OF PROFESSOR BYRAM BRIDLE (VIRAL IMMUNOLOGIST - UNIVERSITY OF GUELPH, GUELPH, ONTARIO, CANADA)

JULY 2021

To whom it may concern,

We offer this letter in support of Professor Bridle's exemplary character and scientific intellect, and, most importantly, his right to express his scientific opinions freely and unfettered. We believe the opinions he has expressed regarding SARS-CoV-2 and the new mRNA/DNA vaccinations have always been underpinned and substantiated by the published literature and deductive reasoning. Although his opinions might appear to be contrary to the prevailing narrative, we state emphatically that this is even more reason for him to be permitted to express his thoughts freely and without fear of official censure and abuse.

The very essence of scientific inquiry is based on the principle of constant interrogative thinking and a healthy degree of skepticism and debate in relation to any one biological phenomenon (which applies to other areas of research as well). However, it is with great alarm and deep concern for the principles of the scientific method that we have seen Professor Bridle's very character impugned as he dared to rely on the accumulative scientific data to support his call for the application of caution in relation to the current nucleic acid-based therapy-based vaccinations for COVID-19. In fact, we are disturbed to see the depths to which those who do not agree with him have sunk, including some of his local colleagues. The critical letters, false websites, tweets and posts being sent to attack his character and qualifications are at best sophomoric, and at worse childish, if not criminal. Is it no longer possible to have scientific disagreements without resorting to character assassination? If this is the case, then the pursuit and application of science is in possible jeopardy. The public, which provides the main source of research funding through various government agencies, will no longer be able to trust that unbiased and open scientific debate surrounding new technologies or data still occurs. If we are fortunate, perhaps science is only in a holding pattern and we can still rescue this noble discipline. However, this will occur only if the scientific community is willing to have open conversations about the facts from all viewpoints without resorting to ad hominem attacks or other forms of unfair and wholly inappropriate acts of overt and often times publicly aired vengeance! A return to 'sober scientific thought and argumentation', is the only way we will be able to rebuild trust among the public.

The COVID-19 pandemic has brought a high degree of uncertainty, along with novel technologies that have not been tested widely in humans until now. We recognize and appreciate that these vaccines were developed with the best of intentions, but when serious signals of injury are being observed (as is the case now, Figure 1), the prudent and wise decision is to pause vaccination programs. This is particularly so with the young who are actually at low risk of serious illness with COVID-19, but are currently developing myocarditis following vaccination at an alarming rate!

Unfortunately, those that develop myocarditis do not fully 'recover' and are at increased long term risk for an array of cardiological problems ranging from arrhythmias to cardiomyopathy! This alone can be taken as a sign that issues pertaining to the new vaccines must be elucidated, and the science behind the vaccines must be open to scrutiny and debate.

Yet it has been difficult to challenge some of the new ideas due to the sense of urgency. However, it is exactly at times like this that it is critical for all voices to be heard so that regrettable errors can be detected early to prevent serious clinical problems that might arise in people who have been vaccinated. We see Professor Bridle as one of those expert voices encouraging people to think carefully about all the evidence and being willing to change direction as warranted when new data comes to light. Yet, despite the scientific validity of his concerns (echoed recently by a Senior Editor of the British Medical Journal - Peter Doshi, one of the original inventors of nucleic acid vaccine platforms – Dr. Robert Malone, the WHO, and countless others), his messaging and his professional character are being attacked. We do not object to those who argue with his conclusions as this is the very ethos of scientific inquiry. However, we cannot support those who attack his credentials and character or try to remove his presentations from public view.

By its very nature, drug development, and the science associated with this endeavor require that as new data emerge, new thinking, possibly even changing of the course of investigation are critically important. In fact, we applaud Professor Bridle's courage to bring a debate forward despite knowing that his message might (and evidently has) result(ed) in harsh confrontation. Professor Bridle has a proven track record in viral immunology, the two key disciplines most closely aligned with understanding and responding to the SARS-CoV-2 viral pandemic. Professor Bridle's expertise has been recognized nationally and internationally. For example, Professor Bridle was the recipient of the 2020 Zoetis Award for Research Excellence at the University of Guelph. He has also made important and novel contributions to the field of cancer research and vaccinology, especially in the development of novel biotherapies. With this in-depth knowledge and experience in hand, he is well-equipped, perhaps better than most that have argued against him, to discuss the virus and the technologies currently employed for its control.

Although the type of criticism Professor Bridle is receiving is not unexpected, it is grossly unethical to take this opportunity to defame his character or to demand the removal of his funding from agencies by which he has been respected and closely aligned for years. This is in fact contemptible. As fellow scientists, we are appalled to see emails to funding agencies demanding the removal of Dr. Bridle's funding. Where would we be without courageous researchers willing to stand up for their ideas and debate the science openly? Many key discoveries would have been lost if others were not willing to listen and exchange ideas.

It has been deplorable to see colleagues berating Professor Bridle on Twitter and Facebook without so much as contacting him to ask for a discussion of the issues. In fact, not one colleague who signed the recent open letter in the "Worms and Germs" blog (www.wormsandgermsblog.com) has taken the time to contact Professor Bridle to discuss his thinking around the literature that he cites. The core academic group, and many others of us signing this petition have taken the opportunity to personally discuss these ideas with Professor Bridle on numerous occasions. Although we may not always endorse every idea he has put forward, we agree totally with a need

for caution around the vaccination of children under 18 years of age, particularly without parental consent. We also fully support his right to freedom of speech and academic freedom so that he can express as freely as possible his scientific ideas, which are motivated by his desire to serve and protect the Canadian public.

We also point out that it seems pusillanimous that many of the complaints against Professor Bridle have come from anonymous 'keyboard warriors'. Those who do not provide their identities and are not willing to engage in a fair and open debate of these ideas in front of the public have no business to deride Professor Bridle, although they too have the freedom to be critical of his opinions, even if they (the detractors) are right or wrong. If they are confident that Professor Bridle and others are incorrect, why are his critics unwilling to participate in an open conversation or even a debate? Along these lines, Professor Bridle and many other colleagues requested that the Premier of Ontario, Doug Ford, and any members of the Ontario COVID Task Force participate in an open forum. This invitation was not acknowledged except by local MPs, and no invitation accepted. Invitations to specific colleagues posting negative comments on social media, including those that initiated the open letter in Worms and Germs, have also not been accepted. We believe, given the critical nature of this matter, the issues surrounding COVID vaccinations should be debated in front of the Canadian public by people with differing views. We are confident in the ability of Canadians to draw their own well-thought out conclusions, provided that they are given the opportunity to listen to and think about all sides of the argument whether or not they agree with Professor Bridle.

We were also shocked that individuals, also unknown, have made websites using his name (e.g. https://byrambridle.com/) to post harmful and slanderous comments about Professor Bridle. This site is replete with disinformation and outright lies, which are being promulgated to defame Professor Bridle. Then there are the 'fact checkers'! What, exactly are their credentials? Who are they? And when one reads their so-called fact-checks, it becomes painfully obvious that apart from attacking Professor Bridle or simply being dismissive of his comments, these ghost-like 'experts' cannot challenge Professor Bridle on any grounds that have any scientific merit.

With respect to his position regarding the spike protein being a concern given its vaccine-induced expression in various tissues, including immune privileged sites, there are now many publications demonstrating precisely that the spike protein can be hazardous. We have provided limited reference here, since we are addressing the bigger issues of academic freedom, but will provide more upon request. However, a few key publications are worth mentioning since the idea of the SARS-CoV-2 spike protein being pathogenic seems to be what is most troubling to Professor Bridle's detractors.

A recent paper by Ogata *et al.* (2021) published in Clinical Infectious Diseases (https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciab465/6279075) showed that plasma collected from 11 of 13 health care workers had detectable levels of spike protein and/or S1 antigens as early as one day and up to 28 days (in one individual) following vaccination with the mRNA-1273 Moderna vaccine. Although the amounts of spike proteins were low, it is worthy of further investigation for a number of reasons:

1. Reports of vaccine adverse events such as vaccine-induced thrombocytopenia (VITT) and myocarditis, associated with both the mRNA and DNA vaccines, seem to be due, at least in part, to binding of spike protein to the ACE2 receptor on endothelial cells within the blood vessels. VITT was a key reason why the AstraZeneca vaccine was eventually suspended in Canada and elsewhere.
2. The Pfizer biodistribution data sent to the Japanese regulatory authorities demonstrating in rodents that within 15 minutes of immunization the lipid nanoparticles (LNPs) carrying a mRNA construct could be found in multiple organs and tissues including the blood, bone marrow, brain, ovaries, liver, spleen, adrenal glands and other sites (https://www.naturalnews.com/files/Pfizer-bio-distribution-confidential-document-translated-to-english.pdf). This was of concern, since following traditional vaccination the foreign protein would be expected to stay close to the site of injection and the draining lymph-nodes, but not migrate to various tissues, particularly immune-privileged sites where expression of foreign protein can induce inflammatory damage. These results should at least be confirmed in other species before further vaccination of children. Also, traditional vaccines deliver a known amount of foreign protein, whereas the mRNA and DNA vaccines rely on the host to produce an unknown amount of foreign spike protein. Children may be different than adults with respect to the amount of spike protein they produce due to effects of age and metabolism.
3. The publication by Zhang and Shyy *et al.* (2021) in Circulation Research (https://www.ahajournals.org/doi/full/10.1161/CIRCRESAHA.121.318902) showing that the viral spike protein plays a key role in the disease itself, by allowing attack of the vascular system at the cellular level. This again pointed to a potential concern about any amount of spike protein induction in the circulation.
4. A publication (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7758180/) by Nuovo *et al.* (2021) in the Annals of Diagnostic Pathology showing endothelial cell damage, including within the microvessels of the brain, could readily be induced by viral S1 subunit injection in mice.
5. A recent preprint (https://www.biorxiv.org/content/10.1101/2021.06.25.449905v1) by Patterson *et al.* (2021) showing that human non-classical monocytes capable of causing inflammation, and found in circulation, can carry SARS-CoV-2 S1 protein up to 15 months following infection. In a recent online interview with Dr. Bruce Patterson, he stated that similar observations have been seen post-vaccination. He noted spike proteins carried for many months in monocytic cells associated with long-term effects of COVID-19, and possibly long-term adverse vaccines effects. This requires further investigation.
6. A couple of small studies, one by *Low et al.* (2021) indicated that following BNT162b2 vaccination, there is at least a minimal transfer of vaccine mRNA secretion into human milk (up to 2 ng/ml) (https://doi.org/10.1101/2021.04.27.21256151) and another study by Bertrant *et al.* (2021) documented that a few infants experienced some adverse symptoms, although mild, following suckling from vaccinated mothers. These are small studies imply that vaccine mRNA can be transferred from mothers to infants in breast milk and may cause some symptoms in the children. https://doi.org/10.1101/2021.04.21.21255841).
7. A publication (https://pubmed.ncbi.nlm.nih.gov/33503469/) by Lagoumintzis *et al.* (2021) indicating a small "toxin-like" epitope on the viral spike glycoprotein with homology to a snake venom toxin also requires further investigation.

Many of the troubling features of the SARS-CoV-2 spike protein occur following natural infection, but the difference is that using LNPs has the potential to quickly deliver the mRNA encoding spike to almost all tissues examined. The current mRNA and DNA vaccine platforms are also designed to induce high expression of stable spike on the cell surface, and an inflammatory response is directed against the transfected cells rather than just the virus. Moreover, it seems that whenever the viral spike protein gets into circulation, there is the potential for additional adverse reactions. Even with rare adverse events, this is a large number of people to consider with mass vaccination. We could provide many more publications for discussion, but the aforementioned should be sufficient evidence to help people understand why Professor Bridle suggested pausing the mass vaccination of children. This recommendation is also in line with a recent WHO cautionary note around the vaccination of children which states "there is not yet enough evidence on the use of vaccines against COVID-19 in children to make recommendation for children to be vaccinated against COVID-19".

These concerning and emerging findings regarding the viral spike protein were unanticipated by all of us, including Dr. Bridle, who admits this openly. However, when Professor Bridle became aware of research showing that the spike protein could be toxic, he concluded that suspending the roll out of these vaccines for children, particularly without parental consent, would be the prudent course of action. Therefore, it is our opinion that Professor Bridle, as an ethical scientist, had no choice but to speak out. His views have not been challenged on a scientific level, and he continues to be open to conversation around these issues. In fact, many world experts agree with his concerns. He participated in international symposia when invited (e.g. COVID Plan B 2020 and 2021, and was hosted by respected colleagues in New Zealand, https://www.covidplanb.co.nz/). He also gave several very informative interviews to the media. The fact that some of these presentations or interviews caused discomfort and debate is not a crime, but is rather a breath of fresh air in what has become a highly censored environment. This environment is tantamount to an echo chamber where those who do not conform are shamed and ridiculed. This is completely anathema to scientific discourse, and is also antithetical to the principles of free speech that are linked inextricably to the maintenance, and improvement of a free and open society.

We also note people's concerns about the variants of concern, including the Delta variant, which is still relatively minor in Canada, but now the most prevalent SARS-CoV-2 strain in England. The current data indicates that although the Delta variant is more transmissible, it is not more virulent. Figure 2 shows that hospitalization rates in England remained low even as the Delta variant became the dominant strain. There is no need for causing further alarm to the public, but rather simply report the facts. Figure 3 indicates death rates in Canada by province also continue to decline. Interestingly, although the overall death rate remains low, the Delta variant appears to be causing more deaths in the vaccinated than the non-vaccinated. The reasons for this are currently being considered, but firm conclusions have not yet been drawn. However, it is well known that the current vaccines do not prevent transmission in a significant portion of vaccinated people.

Another reason for the currently low death and hospitalization rates could be the approach of herd immunity. In fact, several papers point to solid immunity following recovery from COVID-19 (reviewed in https://www.cell.com/cell/pdf/S0092-8674). One publication by a Canadian group reported that >90% of people in the Vancouver area already possessed antibodies to the spike,

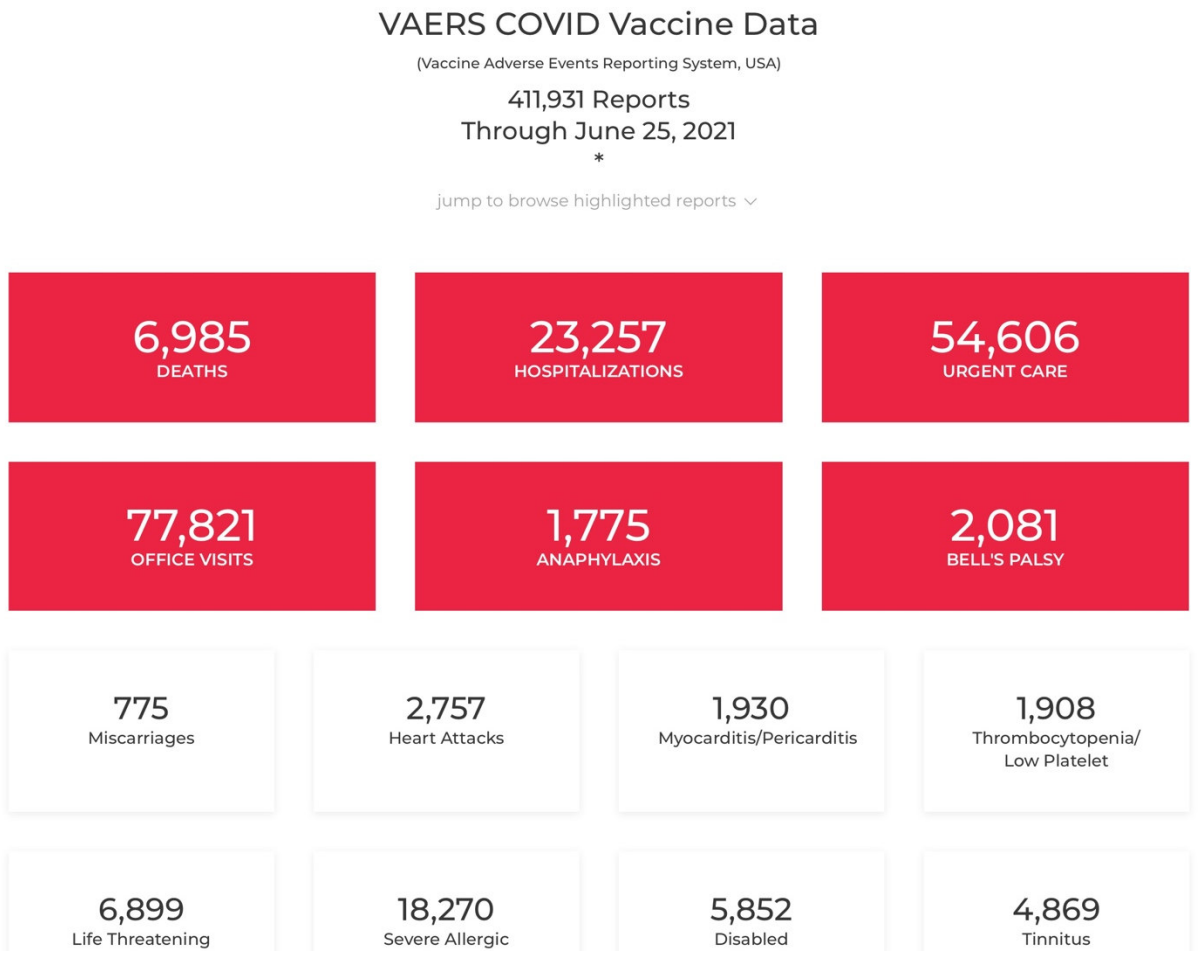
nucleocapsid and other viral peptides of the SARS-CoV-2 virus (https://insight.jci.org/articles/view/146316). Antibodies are a good indicator of immunity to this virus. Although not every person will produce antibodies following COVID-19, the vast majority will, and since very few people are re-infected one can safely assume that memory cells are also generated. The sophisticated SARS-CoV-2 antibody mapping array described in the paper by Majdoubi *et al.* (2021) was developed in Canada and is an excellent tool that can be used to determine the current level of population immunity in Canada. Immunity from natural exposure to this virus is likely to provide a more broad-based level of protection than vaccine-induce immunity, since the immune system gets to recognize all parts of the virus as opposed to just the spike protein. This could be assessed prior to vaccination, particularly as an alternative vaccinating children until more evidence is available.

Professor Bridle is also well-known for his collaborative research efforts with colleagues at eighteen Canadian institutions. This has best been exemplified by Professor Bridle being a founding member of the highly successful National Centre of Excellence in Biotherapeutics for Cancer Treatment (BioCanRx), as well as being one of fifteen members of the pan-Canadian collaborative research network known as the Canadian Oncolytic Virus Consortium (~~OVC~~). These collaborations have led to unique opportunities for highly qualified personnel from ~~OVC~~ to gain interdisciplinary training. Further, these collaborative networks have generated several clinical trials and a spin-off company known as Turnstone Biologics. He has also had notably productive collaborations with scientists such as Dr. Grant McFadden at Arizona State University (a leader in the field of oncolytic virotherapy research) and Dr. Jack Lawler at Harvard University (a leader in the field of cancer vascular normalization research); Professor Bridle has co-authored publications with both. We see no reason for funding agencies to suddenly change their minds about the worth of Professor Bridle's contributions or critical thinking skills. Professor Bridle is making unique and important contributions to his discipline, and we can see no reason that this should not continue well into the future. It would be a great loss for our country to defame one of its own topflight scientists, because he is courageous enough to bring forth a difference of opinion. And to reiterate, his opinions relating to the spike protein, as well as the narrow immunity offered by the mRNA and DNA vaccines are supported by many highly credentialed scientists around the globe, including but not limited to Professor Robert Malone, one of the originators of mRNA technological platforms (https://youtu.be/U1pEtrEr2_s).

Professor Bridle's research over the last several years has been funded by numerous granting agencies including the prestigious Terry Fox Research Institute New Investigator Award, Terry Fox Research Institute Program Project Grant, one Catalyst Grant and one Enabling Grant from BioCanRx, an Innovation Grant that was jointly funded by the Canadian Cancer Society and the CIHR – Institute for Cancer Research (ICR), an Operating Grant that was funded jointly by the Cancer Research Society and the CIHR-ICR), an NSERC Discovery Grant, an operating grant from the Smiling Blue Skies Cancer Fund, and operating grants from the Pet Trust Fund (he was the principal investigator on three and a co-applicant on three). He currently holds government grants to help develop safe and efficacious vaccines against COVID-19. Simply put, he is eminently qualified to speak on this topic.

As colleagues of Professor Bridle, we strongly support his rights to speak as an informed educator and researcher on the topic of COVID-19 vaccination. We fully acknowledge the benefits of vaccination in general, but under the circumstance, support that out of an abundance of caution we should pause mass vaccination of children until we understand the features of the novel nucleic acid vaccines more fully. There are plenty of red flags at the moment and although we are well aware that many governments are moving ahead with mass vaccination of children, we cannot endorse this policy without further investigation.

Figures 1a and b. Number of reported vaccine adverse reactions in US VAERS to June 25, 2021. To date COVID-19-related deaths account for 42% of all vaccine-related deaths in VAERS since it started in 1990 (www.openvaers.com). The reasons for this need to be better understood, but should also be seen as a cautionary sign until further studies are available. It has been estimated that only about 2% of vaccine adverse reactions ever get reported in VAERS.



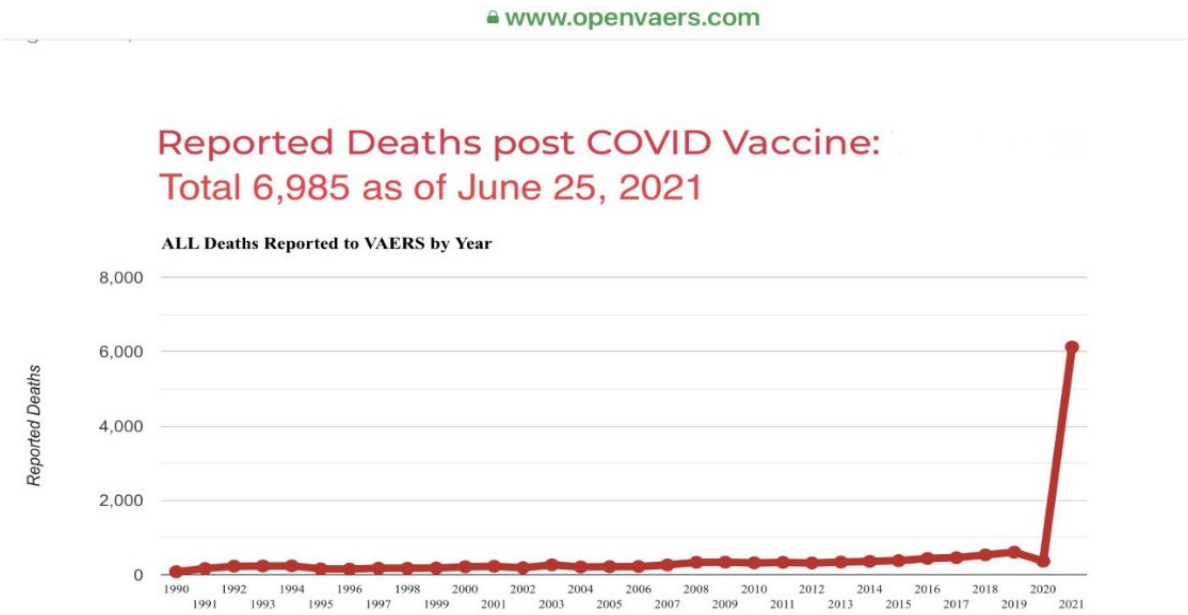


Figure 2. Variant prevalence for all available sequenced cases in England from February 1, 2021 to June 14, 2021 and correlation with hospitalization. Note that the percentage of sequenced SARS-CoV-2 cases corresponding to the Delta variant increased from 5 to 90% from the beginning of April to mid-June (shown in light purple), whereas hospitalization remained low in the same period.

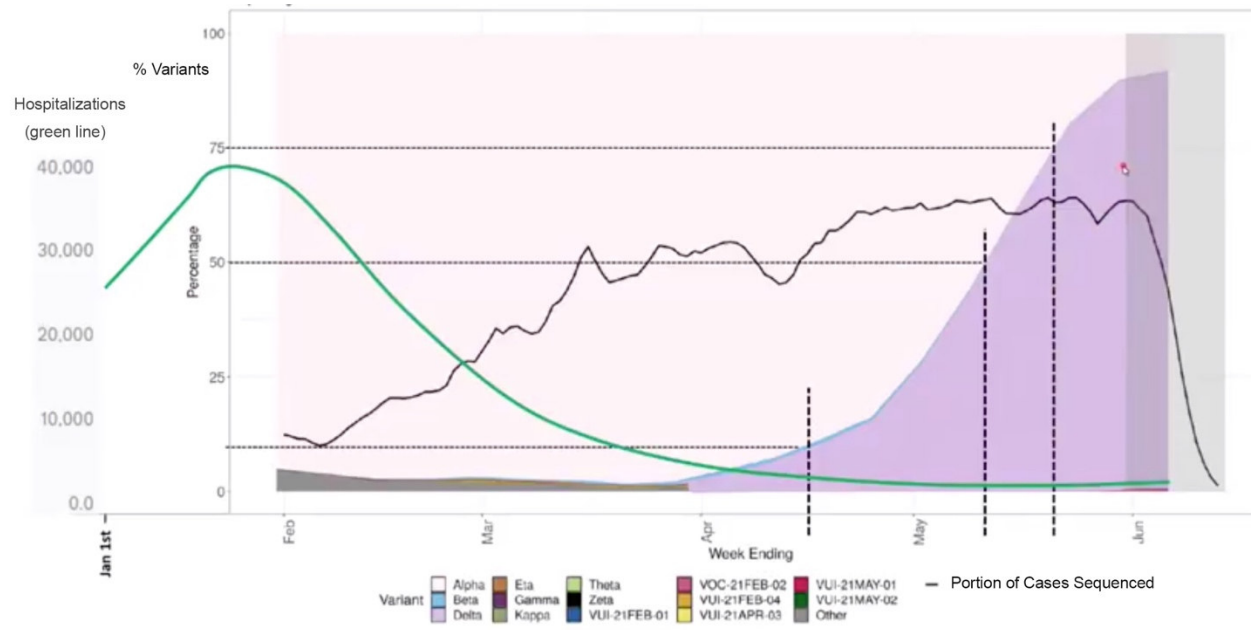
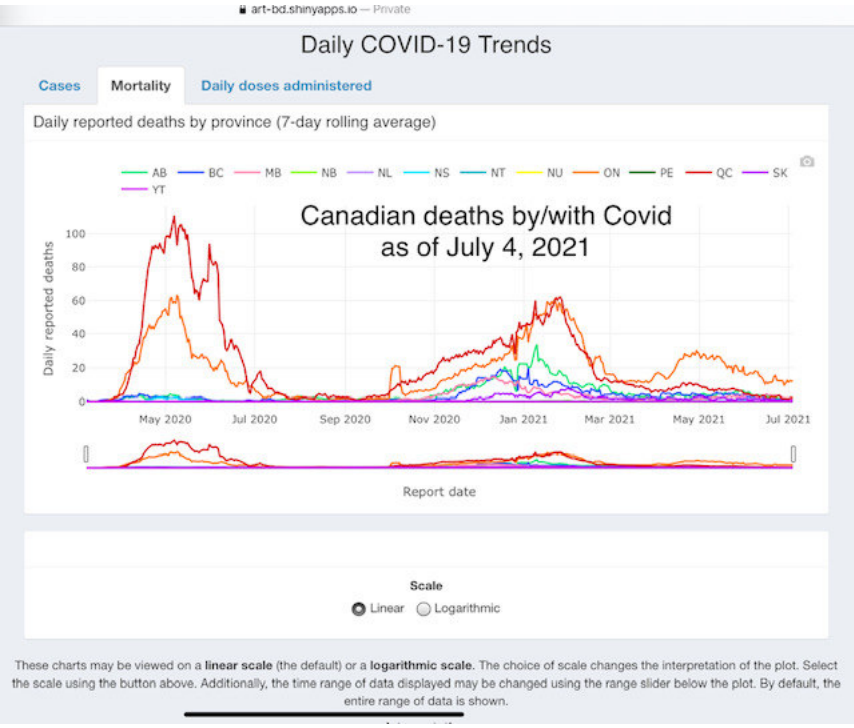


Figure 3. Daily CovidCOVID-19 deaths in Canada by province



Appendix 1. **Signatures from <u>429 Professionals</u> (Worldwide)** in Support of this "OPEN LETTER IN SUPPORT OF PROFESSOR BYRAM BRIDLE (VIRAL IMMUNOLOGIST -UNIVERSITY OF GUELPH, GUELPH, ONTARIO, CANADA)"

Appendix 2. **Signatures from <u>7807 members of the General Public</u> (Worldwide)** in Support of this "OPEN LETTER IN SUPPORT OF PROFESSOR BYRAM BRIDLE (VIRAL IMMUNOLOGIST -UNIVERSITY OF GUELPH, GUELPH, ONTARIO, CANADA)"