The General's Memos

Correspondence Between the Human Generals who Captured and Co-opted the Human Immune System

(Complicated Version)

Note to Reader:

There are two versions of ***The General's Memos***---a "simplified" version and a "complicated" version. The simplified version is intended for laypersons and health care professionals who desire a practical, comprehensible summary of Dr. Geert Vanden Bossche's complex analysis of the COVID-19 situation. The complicated version is intended for scientists and health care professionals who have considerable background in immunology and desire a deeper scientific understanding of Dr. Vanden Bossche's analysis and conclusions.

To facilitate the reading of either version, see the list of acronyms and explanations below:

- **NK cells:** Natural Killer cells These are cells of the innate immune system. They kill virus-infected human cells. They are excellent "first responders."
- **RBD:** Receptor binding domain of the SARS-CoV-2 spike protein. The RBD is the part of the spike protein that fits into the ACE-2 receptor site on human cells. The ACE-2

receptor is the "lock" on the human cell, and the RBD is the "key" that opens that lock, thereby enabling the virus to enter and infect the human cell.

- **NAbs:** Neutralizing antibodies. NAbs attempt to "neutralize" the virus by attaching to the RBD of the spike protein. When NAbs successfully attach to the RBD, the RBD is not able to physically fit into the ACE-2 receptor (the lock) and therefore is unable to open the lock. This "neutralizes" the virus---i.e., prevents the virus from being able to enter cells (which the virus needs to do in order to replicate and survive).
- **NTD:** N-terminal domain of the SARS-CoV-2 spike protein. The NTD is a different part of the spike protein. It is near the RBD but different from the RBD.
- **PNNAbs:** Polyreactive non-neutralizing antibodies. These antibodies are produced when the neutralizing capacity of NAbs declines. PNNAbs bind to the NTD and are both infection-enhancing and virulence-inhibiting.
- **SIR:** Steric immune refocusing. When NAbs lose their neutralizing capacity, they can nevertheless, still bind (weakly and ineffectively) to the RBD. This physically (sterically) "covers" or "masks" the RBD and makes it difficult for the immune system to "see" the RBD. This forces the immune system to refocus its attention on parts of the spike protein that are distant from the RBD.
- **SIR-created antibodies:** broadly reactive, weakly neutralizing antibodies created by the SIR phenomenon. These antibodies react against more conserved (less variable) parts (epitopes) of the spike protein (parts distant from the RBD).
- **APCs:** Antigen presenting cells. APCs present parts of the virus to the adaptive immune system's antibody producing machinery. This is a necessary step in antigen-specific antibody production.
- **CTLs:** Cytolytic T lymphocytes. These cells are able to kill virus-infected cells. They are different from NK cells. They are MHC Class 1-unrestricted CD8+ cytotoxic T cells.

Introduction:

One day there was a group of people (physicians, scientists, ultra-wealthy corporatists, pharmaceutical executives, military leaders, and governmental health authorities) who thought they knew better than the human immune system how to handle an acute viral infection like SARS-CoV-2. This group captured the immune system and put its human generals in charge of the immune system's various components. These generals included:

- **General WHO:** Supreme Commander of the Immune System's Response to SARS-CoV-2
- **General Antibody:** Commander of the Adaptive Arm of the Immune System
- **Deputy General Pinnab:** Commander of Homeland (lung and internal organ) Security
- **Deputy General Apcee:** Commander of Antigen Presenting Cells (APCs)
- **General EnKayCel:** Commander of the Innate Immune System

Thanks to the granting of a FOIA (Freedom of Information Act) request, the following correspondence was recently discovered and made available to the public.

MEMO:

Date: December 2020
From: General WHO, Supreme Commander of the Immune System's Response to SARS-CoV-2
To: Generals who are now commanding components of the human immune system
Subject: New, spectacularly effective (and very safe) mRNA vaccines against SARS-CoV-2

Dear All,

We at Supreme Command Headquarters, along with our colleagues at Pfizer and Moderna, are ecstatic to announce that we have developed two spectacularly effective mRNA vaccines against SARS-CoV-2 and are now ready to launch a mass vaccination campaign across the entire globe. Our goal is to vaccinate up to 90% of the world's 8 billion people. These vaccines will save millions upon millions of lives!! This represents one of the greatest achievements in human history!!

General Antibody, Commander of the Adaptive Arm of the Immune System: Bravo!! This is extremely exciting news!!

Deputy General Pinnab, Commander of Homeland (lung and internal organ) Security: Ditto!! Huge congratulations!!

Deputy General Apcee, Commander of Antigen Presenting Cells (APCs): Ditto x 2!! You must be extremely proud; I am certainly very proud to be serving under you!!

General EnKayCel, Commander of the Innate Immune System: General WHO, with all due respect, I do not think this is a good idea. First of all, I think the innate immune system, which I have the great privilege and honor to command, will be able to handle this virus quite nicely in the vast majority of people. The innate immune system's NK cells (natural killer cells) are ready to attack virus-infected host cells, and with experience, epigenetic training, and practice they will become increasingly more competent at doing so. If our NK cells fall short, we will be able to recruit our comrades in the adaptive arm of the immune system (under General Antibody's command) to help out with their SARS-CoV-2- specific antibodies. I don't think we need your mRNA vaccines.

Secondly, I think it is a huge mistake to wage a mass vaccination campaign in the midst of an active pandemic (like this COVID-19 pandemic)---especially with vaccines (like the COVID-19 mRNA vaccines) that fail to prevent infection and transmission, even if the vaccines do provide some temporary protection against severe disease and death. Such a campaign, at a population level, will promote the natural selection and dominant propagation of "immune escape variants" that happen to have a "fitness advantage." This will lead to the appearance of a vast array of successive dominant "immune escape" variants that are increasingly infectious; and it will ultimately lead to the natural selection of a more virulent variant (or variants). The result will be a more prolonged and dangerous "immune escape" pandemic that will ultimately

cumulatively cause far more hospitalizations and deaths than would have cumulatively occurred in the absence of the mass vaccination campaign.

General WHO: Aaay. Poppycock! That's nonsense! This mass vaccination campaign is going to be the greatest achievement in the history of Medicine---perhaps the greatest human achievement ever! These vaccines are going to provide far greater protection than naturally acquired immunity!!! They are inducing astonishingly high antibody levels!! They are better than Nature! Isn't that amazing!!

General EnKayCel: I would not be so sure about that, General. Significant naturally acquired infection results in sterilizing immunity which, in turn, contributes to herd immunity. Remember, the only way to end a pandemic is through herd immunity. Your vaccines do not result in sterilizing immunity and will not contribute to herd immunity. In fact they interfere with development of herd immunity.

Furthermore, the COVID-19 vaccines will sideline the cell-based components of our innate immune system (our NK cells). They will prevent the involvement, training, and ongoing practice of our NK cells. NK cells are one of our most important and effective "first responders." In vaccinated individuals the NK cells will be bypassed, left to sit on the bench, unable to play a role in the fight against the SARS-CoV-2 virus. You will be taking away one of the most valuable components of the immune system!

General WHO: I don't believe that. We don't need your NK cells in this fight, because, as I already told you, our vaccines provide better immunity than the immunity acquired through natural infection. Amazingly, our vaccines provide much higher antibody levels than are achieved when the immune system responds to natural infection. And we can keep boosting those antibody levels whenever needed!

You need to keep your innate immune system out of our way, General EnKayCel. We've got this pandemic covered. We can handle this virus with the fantastic neutralizing antibodies our vaccines stimulate. Just stay out of our way and watch in awe!! You and the virus will be shocked by the magnitude of our success!

General EnKayCel: General WHO, immunity is not just about antibody levels. I think you need to think this through a little more carefully—perhaps obtain some additional opinions and….

General WHO: And I think you need to shut up! You are trying my patience!!

General Antibody: General WHO, as Commander of the Adaptive Arm of the Immune System, I am happy to report that we are ready to go! We will be able to make huge quantities of neutralizing antibodies as soon as your vaccines give us the signal to do so. I have been meeting with Deputy General Apcee, who heads up the Antigen Presenting Cells (APCs) that enable us to produce the neutralizing antibodies. Deputy General Apcee, are you ready, Sir?

Deputy General Apcee: Roger, we are ready! We are prepared to present appropriate SARS-CoV-2 antigens to your antibody producing machinery at any time.

General Antibody: Thank you. As you well know, we can't do this without you. We depend on your APCs to present antigen to us. Without that careful presentation, we cannot produce SARS-CoV-2-specific antibodies.

General WHO: Good. We are ready. I will give the order to immediately launch the mass vaccination campaign!!!

MEMO:

Date: December 15, 2023
From: General WHO, Supreme Commander of the Immune System's Response to SARS-CoV-2
To: Generals who are commanding components of the human immune system
Subject: Our first review of the mass vaccination campaign

Dear All,
It has been 3 years since we launched the mass vaccination campaign and last talked. I thought it would be prudent to re-convene and see how things have gone over the past 3 years---you know, to carefully review matters, make sure everything is going well, out of an abundance of caution. I have been watching CNN and have occasionally checked in with the CEOs of Pfizer and Moderna, and they have been assuring me that everything is going great. They are thrilled with how safe and effective the vaccines have proven to be. They were gushing with praise for the mass vaccination campaign. It is truly astonishing how many lives have been saved!! If anything, our expectations have been exceeded.

The only problem they mentioned was that, unfortunately, a small fringe group of physicians and scientists has been spreading misinformation and disinformation that is causing increasing vaccine hesitancy. That is, indeed, very sad. But we have developed a plan to eliminate this problem.

General Antibody, how are things going from your point of view?

General Antibody: We have been doing okay. Unfortunately, our initial vaccine-induced neutralizing antibodies (NAbs) were only partially effective and not effective for very long, even after we repeatedly boosted vaccinees. The vaccine-induced NAbs did not seem to prevent infection or transmission. It seems as though the virus quickly developed resistance to these NAbs---as luck would have it. Who knew!? We are hoping for better luck going forward.

General EnKayCel: Stated more scientifically and accurately, your vaccine-induced NAbs placed great population-level immune pressure on the virus and this resulted in the predictable natural selection and dominant propagation of variants that possessed mutations that enabled those variants to escape your NAbs. Congratulations, you initiated a prolonged and inescapable "immune escape" pandemic.

General Antibody: Whatever. I don't understand a thing of what you said. Please keep your sarcasm and nonsense to yourself.

General WHO: So, General Antibody, what did you do when the virus became resistant to your NAbs? We always need to adjust to what the enemy is doing, you know.

General Antibody: When our NAbs increasingly lost their capacity to neutralize the ever-evolving virus, the adaptive immune system started producing polyreactive non-neutralizing antibodies (PNNAbs). I did not order this to happen; it just happened spontaneously. These PNNAbs seem to help but I'm not sure how much or how. In fact, there is a problem with these PNNAbs. I will let Deputy General Pinnab explain this to you. He is in charge of those who are producing PNNAbs.

Deputy General Pinnab: There is one small problem with the PNNAbs. They seem to be making the virus more infectious.

General EnKayCEl: Stated more scientifically and accurately, PNNAbs attach to the N-terminal domain (NTD) of the spike protein, and this flips the receptor binding domain (RBD) of the spike protein into the open position, which then makes it easier for the RBD to fit into the ACE-2 receptor on the human host cell---thereby facilitating entry of the virus into the cell---i.e., enhancing infection.

Deputy General Pinnab: Whatever. But the good news is that these same PNNAbs seem to somehow protect the vaccinee from severe disease and death, at least somewhat.

General EnKayCel: Stated more scientifically and accurately, what happens is this: In the context of considerable infection with a highly infectious acute respiratory virus, migratory dendritic cells that patrol the upper respiratory tract (URT) absorb individual SARS-CoV-2 virions onto their (the dendritic cells') tentacles. PNNAbs then attach to the SARS-CoV-2 virions that are tethered to these migrating dendritic cells. When these virus-laden dendritic cells migrate down to the lower respiratory tract (LRT), these PNNAbs (that are attached to the tethered virions) prevent the release of virions from the dendritic cells into the LRT. This prevents virions from leaving the dendritic cells and infecting epithelial cells in the LRT, thereby, preventing severe disease in the LRT. (This same mechanism prevents severe disease in other internal organs.) That is how these PNNAbs are virulence-inhibiting. This virulence-inhibiting effect of PNNAbs is playing a very important role in protecting vaccinees from severe disease and death. It will be a disaster if vaccinees lose this protection.

Deputy General Pinnab: Whatever. Please stop interrupting with your complex scientific explanations. It's annoying. The bottom line, though, is that the PNNAbs my troops produce protect the lungs from becoming severely infected. Our PNNAbs are like homeland security agents. They prevent the virus from invading and severely infecting the lungs and also from invading deeper into the body to infect other organs. We protect the homeland with our

PNNAbs!! We are very important; I hope you realize. Without our virulence-inhibiting PNNAbs, vaccinated individuals would be in deep trouble. We just need to keep those PNNAb levels high.

General WHO: That's great, Deputy General Pinnab. Thank God for the virulence-inhibiting PNNAbs!

General Antibody: Unfortunately, we have noticed another problem, General WHO.

General WHO: And what is that? If it is too bad, I don't want to hear it.

General Antibody: Well, it seems that as the NAbs became increasingly less able to neutralize the virus, the adaptive arm of the immune system automatically started creating antibodies to other parts of the spike protein---parts that are farther and farther away from the receptor binding domain (RBD). These new antibodies have been somewhat neutralizing but they seem to be pretty weak and as time goes on these weak neutralizing antibodies seem to be getting weaker and weaker, making them less effective at neutralizing but somehow (I don't know how, exactly) better at lessening the severity of infection.

General EnKayCel: Stated more scientifically and accurately, what has happened is this: The first neutralizing antibodies (NAbs) produced by the immune system in response to SARS-CoV-2 vaccination were directed against the very important (and highly variable) receptor binding domain (RBD) of the spike protein. The RBD is particularly important because it is the part of the spike protein that inserts into the ACE-2 receptor on human host cells and, thereby, enables the virus to enter host cells. By attaching to the RBD, the first NAbs sought to block viral entry into host cells---i.e., by attaching to the RBD they attempted to "neutralize" the virus.

When these NAbs increasingly lost their capacity to adequately neutralize the virus (because the virus was continually evolving so as to become unaffected by these NAbs), they could, nevertheless, still attach (weakly) to the RBD whenever they were boosted to exceptionally high levels, which occurs whenever vaccinated individuals developed "breakthrough" SARS-CoV-2 infection or were otherwise "boosted." ("Breakthrough" infection means infection that occurs in a vaccinated individual despite the individual being vaccinated). This weak attachment to the RBD was not sufficiently strong to neutralize the virus but was sufficiently strong to "cover" or "mask" the RBD so that it was difficult for the immune system to "see" the RBD. In other words, this resulted in the RBD being sterically hidden (physically hidden, in a way) from the view of the immune system. This redirected the immune system's attention (and response) to parts of the spike protein that it could more easily "see"---parts that are farther and farther away from the RBD. These parts of the spike protein are less immunogenic (than the RBD), less variant-specific, less variable, more conserved.

This resulted in the successive production of a series of antibodies that are directed, sequentially, against increasingly less immunogenic and less variant-specific (i.e., more conserved) parts (epitopes) on the spike protein. This dynamic and constantly evolving process is called "Steric Immune Refocusing" (SIR), and these antibodies are called SIR-created neutralizing antibodies. These SIR-created antibodies are broadly neutralizing but their neutralizing activity is only short-lived. They bind only very weakly to binding sites on individual

virions. They are most effective when they bind to large aggregates of virions. It is this change in binding behavior that makes them less effective at neutralizing the virus but better (in a different way) at lessening the severity of infection. They are better at lessening the severity of infection because these large viral aggregates with SIR-created antibodies bound to them are taken up by antigen presenting cells (APCs) which, in turn, activate cytotoxic T lymphocytes (CTLs), which, in turn, kill virus infected cells, thereby lessening severity of infection.

I am sorry that this is so complicated. Perhaps it is helpful to realize that the dynamic, ever-changing SIR phenomenon evolves from antibody-mediated lessening of infection severity to CTL-mediated lessening of infection severity. This transition involves evolution from antibody attachment to individual virions to antibody attachment to increasingly larger viral aggregates. Antibody-complexed large aggregates are taken up by APCs, which, in turn, activate CTLs. Hence, the shift from a predominantly antibody-mediated immune response to a predominant CTL-mediated response.

I should add that it is this SIR phenomenon that is responsible for the vast array of increasingly infectious Omicron variants and subvariants.

General WHO: So, where do we stand now?

General Antibody: Well, we seem to be getting deeper and deeper into trouble. For some reason, the APCs that we depend upon to present viral antigen to our antibody producing machinery (T helper cells and B cells) are no longer able to promptly, reliably, or sufficiently do that work for us. It's as if they are too busy doing other things and are not able to promptly and adequately attend to our needs; or maybe there are not as many of them. We want to be producing updated NAbs in response to the updated mRNA vaccines, but we have been unable to do so (in the absence of successful help from our APCs). We have wanted to at least produce the weaker neutralizing antibodies (SIR-created broadly neutralizing antibodies), but we have become increasingly unable to do that, too.

Deputy General Pinnab: We have noticed the same thing. We want to be producing high levels of virulence-inhibiting PNNAbs but we have increasingly been unable to maintain adequate levels of these PNNAbs. We are afraid that the level of virulence-inhibiting PNNAbs will drop so low that our homeland will be massively invaded.

General WHO: So, are you telling me that the immune system in highly vaccinated individuals is now having difficulty producing new updated neutralizing antibodies to our updated mRNA vaccines, and is also having difficulty producing SIR-created antibodies and virulence-inhibiting PNNAbs? Can someone tell me what in the hell is going on?!!!??%#

General EnKayCel: To review: The initial NAbs ceased to work adequately well (or at all). This led to the production of PNNAbs which had a protective virulence-inhibiting effect, if they could be kept at sufficiently high levels. In the meantime a series of successive SIR-created neutralizing antibodies were produced, which have temporarily helped (although they spawned a vast array of increasingly infectious Omicron variants in the process). But these SIR created antibodies increasingly became less able to adequately neutralize virus because they became

increasingly unable to bind to individual virions. They could still bind to larger viral assemblies (aggregates) but not without decreasing their virus-neutralizing capacity.

General WHO: Yes, you have already told us that. What's the next point?

General EnKayCel: Large antibody-complexed viral aggregates are taken up by antigen presenting cells (APCs). When there are large quantities of these large viral aggregates, this greatly activates and preoccupies APCs. Also, when these large viral aggregates are taken up by APCs this triggers the activation of cytotoxic T lymphocytes (CTLs). CTLs are capable of rapidly killing virus-infected cells, thus lessening the severity of infection. (The CTLs we are talking about here are MHC Class 1-unrestricted CD8+ cytotoxic T cells, which are different from the well-known and well-studied conventional MHC Class 1-restricted CD8+ cytotoxic T cells that the immune system most commonly uses to kill infected cells.) Although this APC activation/enhanced CTL activity abrogates (negates) infection (a good thing), it also results in a dampening of T helper cell dependent recall and boosting of previously primed antibody production, and it hampers new antibody production (to updated mRNA vaccines, for example). As the immune system response increasingly shifts (evolves) from an antibody-mediated response to a CTL-mediated response, relevant antibody production declines.

Suffice it to say that **in this process of APCs taking up large quantities of antibody-complexed large viral aggregates, becoming hyperactivated and preoccupied, and massively activating CTLs, the capacity for APCs to stimulate other T cells becomes diminished.** Diminished stimulation, or down-regulation, of other effector T cells and failure to recall previously primed T helper cells leads to loss of control of other underlying chronic disorders (including cancers and infectious diseases) as well as failure to recall previously vaccine-primed and SIR-primed antibodies. The resulting decrease in antibody concentration prevents single virions from refocusing the immune response to the highly conserved infection-enhancing site within the NTD of the spike protein---thereby impeding production of PNNAbs. **The bottom line is that the APCs become less able to** present specific antigens to the antibody producing machinery that produces NAbs, SIR-created antibodies, and (indirectly) PNNAbs. As a result, the levels of those antibodies fall.

Deputy General Pinnab: Oh, so that is why we have been unable to produce the amount of PNNAbs that we used to produce. That is why those levels have been dropping.

General Antibody: Ah yes, and that must be why new "updated" vaccines have been unable to produce new "updated" neutralizing antibodies or to recall previously vaccine-primed and SIR-primed antibodies at concentrations high enough to enable neutralizing capacity. Am I correct, General EnKayCel?

General EnKayCel: Well, CLOSE ENOUGH---as long as you appreciate how extremely complex these immunologic interactions are. And if you look carefully, you might see that you are also having difficulty efficiently generating T cell-mediated protection against underlying chronic disorders such as chronic infectious diseases and cancer.

And by the way, you should know that NK cells do not rely on "classical professional APCs." NK cells recognize threatening antigen on the infected host cell and can intervene at a very early

stage of infection (before viral progeny are produced). That is why NK cells are such effective and important "first responders" and should never be sidelined!!

General WHO: So what in hell is going to happen next, goddamit!!?

General EnKayCel: Can you handle the truth, General WHO? How about you other Generals, can you handle the truth?

In highly vaccinated individuals we have the following situation: For the reasons stated above, the levels of virulence-inhibiting PNNAbs will continue to drop to a level, eventually, that is no longer protective. As those levels drop into a suboptimal (lowish) range, this will put strong population-level immune pressure on the virus and will promote the natural selection and enhanced propagation of variants that have mutations that enable them to overcome (negate) the virulence-inhibiting effect of whatever PNNAbs remain. Those two events will enable the new variants to easily invade the homeland---i.e., cause severe disease in the lungs and other internal organs.

Making matters worse, the NK cells of vaccinees have been sidelined throughout the mass vaccination campaign. Accordingly, vaccinees do not have highly experienced, epigenetically trained, and well-practiced NK cells to help them kill virus-infected cells.

As already mentioned, the capacity of vaccinees to recall SIR-created antibodies has diminished and this has resulted in SIR-created antibodies dropping to levels that are unhelpful, while shifting the immune response to non-spike protein-specific CTLs. Soon, the only thing helping vaccinees will be the massive activation of these CTLs. However, reliance on these CTLs is unsustainable (for complex reasons[**]) and will soon fail.

[**]When a new SARS-CoV-2 variant emerges that is able to overcome the virulence-inhibiting PNNAbs (rendering the PNNAbs effete) and as fewer and fewer antibody-complexed large viral aggregates are formed, uptake of these large aggregates by APCs will diminish and the massive activation of protective CTLs will cease.

The bottom line is that highly vaccinated individuals have been relying on SIR-created neutralizing antibodies, virulence-inhibiting PNNAbs, and activated CTLs to withstand SARS-CoV-2 infection, but all three of these protective mechanisms are unsustainable and will soon ultimately fail, not to mention that they have been causing harmful side effects in the meantime.

I am sorry to say, Generals, but soon a highly infectious and highly virulent variant will emerge, become dominant, and because it will be unaffected by virulence-inhibiting PNNAbs, it will cause a catastrophic number of hospitalizations and deaths, particularly among highly vaccinated individuals in highly and rapidly vaccinated populations. I warned you about this three years ago. This outcome was foreseeable.

Healthy unvaccinated individuals will fare much better and will probably do well. Throughout the pandemic their NK cell training and practice have been good and ongoing, resulting in increasing NK cell competency to deal with new SARS-CoV-2 variants. In contrast to highly vaccinated individuals, they have not been depending on virulence-inhibiting PNNAbs, SIR-

created neutralizing antibodies, or massive activation of CTLs. They have been depending on normal, natural immune system mechanisms.

I must add that when this highly virulent variant arrives and causes a huge surge of illness, there will be more than just a health care crisis. This surge will result in an enormous social crisis, due to so many important workers of all types (not just health professionals) becoming ill. There will be great social and economic chaos and collapse. For example, "supply chains" will become severely crippled. The social disruption and distress is hard to fully imagine right now but will soon become painfully obvious.

General Antibody: I think you are being overly dramatic, General "Doomsday." Please stop the fearmongering.

General Apcee: I have heard that a new variant, the JN.1 variant, is now the dominant variant in much of the world. It seems to be highly infectious but, so far, has not seemed to be more virulent than its predecessors. I am not sure what to make of this new variant.

General EnKayCel: I view the rapid emergence and dominant propagation of JN.1 to be alarming---a harbinger of what is soon to come. The significance of the JN.1 variant is that it has mutations that strongly suggest that the virus is, indeed, now adjusting to population-level immune pressure on viral infectiousness that is being exerted by the activation of CTLs; while the immune pressure exerted by the lowered, suboptimal levels of virulence-inhibiting PNNAbs will soon result in the natural selection and enhanced propagation of variants with mutations that enable those variants to overcome the protective effect of the PNNAbs.

So, JN.1 tells us that we are on the verge of seeing the appearance of variants that are capable of overcoming the protective virulence-inhibiting effect of PNNAbs. When this happens, loss of the protective activation of CTLs will soon follow.

This will leave highly vaccinated people defenseless. They will no longer be protected by the PNNAbs or the CTLs upon which they have been depending.

I cannot emphasize enough that the key turning point of the pandemic, the most important upcoming event, will be the rather sudden loss of the virulence-inhibiting effect of PNNAbs. When that protection is lost, all hell will break loose, and Humanity will be in deep trouble, especially highly vaccinated individuals living in countries whose citizens were highly and rapidly vaccinated.

Again, I am sorry that this is so complicated. Please realize that during this pandemic we have been dealing with immunologic phenomena that have never been seen or studied before. Never before in the history of Medicine have we made the mistake of launching a global-scale mass vaccination campaign in the midst of an active acute viral respiratory infection. So, we are seeing vaccine-influenced interactions between the virus and the immune system that we have not seen before. Complicating matters further, these interactions have been constantly changing/evolving such that studying them is like studying a moving and always changing target. Furthermore, novel tricks are being used by both the virus and the immune system in their interactions/counteractions. My understanding of all of this has been evolving. I am still

learning. If the outcome of this misguided mass vaccination campaign were not so tragic, the immunology and virology of it would be fascinating.

General WHO: So, what in hell do we do now? The public will be furious. This is going to be difficult to cover up. What should we say to the public?

General Antibody: I would suggest that we blame this situation on the low percentage of people who have gotten the booster doses of the updated vaccine---plus, of course, the selfish people who never got vaccinated in the first place. If everyone had gotten vaccinated as the WHO and CDCs have recommended, we would have herd immunity by now and the pandemic would have ended long ago. But with so few people getting boosted, the virus has had a chance to thrive and evolve to become more problematic. This mess is a pandemic of the unvaccinated!!! We did our best under very difficult circumstances, but our efforts were sabotaged by the anti-science, anti-vaxx crowd. That is what we could tell the public and their governments. We can get the conventional news media and physicians to emphatically promote that message. We can also ask prestigious medical journals and highly respected monthly magazines to promote this narrative. These groups nicely cooperated with us at the beginning of the pandemic.

Deputy-General Pinnab: Good idea. I think that will work. Or we could claim that a new, more virulent "SARS-CoV-3" virus has unfortunately and unexpectedly emerged from nature (due to the increasing encroachment of humans on nature) and is now causing "COVID-24."

General WHO: I agree, one of these plans might work, but this is going to be a difficult sell.

General EnKayCel: You know very well, General Antibody and Deputy General Pinnab, that all of the statements you just made are scientifically incorrect, except for your statement that only a low percentage of people have taken the most recent booster doses.

I have a better idea. Let's just tell the truth, the whole truth, nothing but the truth, and say not only "So help me, God," but also "Please help us, God." The public deserves to know the truth. They need a chance to prepare for a highly likely surge of a highly virulent variant---not only at the medical level but also at the social collapse level. We need to help them to optimally prepare. That is our moral responsibility. We must all work together, kindly helping each other to weather the upcoming storm.

MEMO:

Date: December 28, 2023
From: General WHO, Supreme Commander of the Immune System's Response to SARS-CoV-2
To: Generals Antibody, Pinnab, and Apcee
Subject: Next step

General WHO: We need to get rid of General EnKayCel. He knows too much and will say too much. I don't care how you do it, and I don't want to know how you do it, just get rid of him, as soon as possible. Take him down. And find out who recommended him in the first place.

General Antibody: I'll get to it as soon as I can, but I am afraid I am too ill at the moment. Two days ago I suddenly developed high fever, extreme fatigue, severe headache, flu-like symptoms; and now I have some coughing, and I am starting to get short of breath.

Deputy General Pinnab: Me, too.

Deputy General Apcee: Same here.

General WHO: ….

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December 28, 2023

FURTHER READING:

Please see numerous related articles on Dr. Vanden Bossche's website: **www.voiceforscienceandsolidarity.org**

Please see Dr. Vanden Bossche's book: ***The Inescapable Immune Escape Pandemic***

Please see numerous related articles posted in the **"Notes on COVID-19"** section of Dr. Rennebohm's website: **www.notesfromthesocialclinic.org**

In particular, see the article entitled, ***In Anticipation of a Highly Virulent SARS-CoV-2 Variant: An ADDENDUM.*** This article specifies what individuals, physicians, health authorities, and the general public can do proactively, to prepare for a highly virulent variant, in case such a variant does, indeed, arrive (which Dr. Vanden Bossche thinks is highly likely).
https://notesfromthesocialclinic.org/in-anticipation-of-a-highly-virulent-sars-cov-2-variant-an-addendum/

Note regarding the painting on the title page: This is a painting by Honore Daumier, the great French painter (1808-1879). It depicts Don Quixote deeply thinking, while Sancho takes a nap. The relevance is that General "Geert" EnKayCel, like Don Quixote, has been deep in thought

regarding the complex immunology, virology, vaccinology, and evolutionary biology involved in this pandemic---while, like Sancho, the rest of the medical profession and health care establishment has been taking a nap, oblivious to (or willfully ignoring) the complex immunology they do not understand and the horrible havoc their mass vaccination campaign has created.