International Journal of Human Nutrition and Functional Medicine (ISSN 2378-4881) ICHNFM.ORG/journal

Critical Thinking • Censorship • Education • Viral Infection • Pathophysiology • Nutrition

Controlled Narratives, Banned Books, Institutionalized Nutritional Ignorance, and the 2020 Coronavirus Pandemic

Cavin Balaster interviews Dr Alex Vasquez • 21 March 2020

Context: This was a supremely spontaneous Saturday interview at the invitation of Cavin Balaster wherein Dr Vasquez shared some insights and experiences with his published work from 2009 and 2014-2016 on the use of nutrients to support immunity and to reduce viral entry and replication. This edited PDF transcript is the final version, and the original 2-hour video is available at https://www.InflammationMastery.com/coronavirus2020interview1

Interview

Cavin Balaster:	Dr. Alex Vasquez—Such a pleasure to have you for this interview.
Dr. Alex Vasquez:	Likewise.
Cavin Balaster:	We've been, in each other's lives for a while. You were the first doctor that I started following after my injury, and you have been an unofficial mentor to me for a very long time. And I'm so appreciative of you and really excited to have you actually connect and interview finally.
Dr. Alex Vasquez:	Thank you—I appreciate your invitation. I know that you and I have tried to contact each other back and forth a couple of times over the years. But, like we were just saying I've moved around a lot and just stayed—obviously—very busy.

Citation: Vasquez A, Balaster C. Controlled Narratives, Banned Books, Institutionalized Nutritional Ignorance, and the 2020 Coronavirus Pandemic: Cavin Balaster interviews Dr Alex Vasquez on 21 March 2020. *Int J Hum Nutr Funct Med* 2020;8:1 https://www.ichnfm.org/journal Externally archived by the author at https://ichnfm.academia.edu/AlexVasquez

Cavin Balaster: Right now, you are in Europe. Right? That's where you live.

Dr. Alex Vasquez: Yeah. [laughing] I'm in protective custody right now.

Cavin Balaster: Not a bad place to be. Who's holding you hostage?

Dr. Alex Vasquez: Well, right now, the entire global control system, it would appear. Because as you know, my opinion of this [global "pandemic" situation in 2020 March] is that this is not simply a medical issue. It obviously has some political components to it.

Cavin Balaster: Right.

Dr. Alex Vasquez: But anyway, we may or may not talk more about that. Why don't we talk about the history you were just asking me about, the book, and all the stuff that happened this past week.

Cavin Balaster: Yes, I will. All right. First of all, Dr. Vasquez is a Doctor of Osteopathic Medicine, a Doctor of Naturopathic Medicine, and a Doctor of Chiropractic. He's written over 100 articles in peer-reviewed journals and written…some 25 textbooks by now?

Dr. Alex Vasquez: Yes, probably more like 35 books, depending on how you do the math.

Cavin Balaster: Dr. Vasquez is one of the most prolific humans I know and extremely accomplished. And I wanted to get him on to talk about the COVID-19 situation that we have going on right now. And get some perspective on what it's looking like from his very educated standpoint. So first of all, I want to ask you, ***what is a virus?***

Dr. Alex Vasquez: So, viruses are obviously tiny little structures. They are smaller than cells, and they are smaller than bacteria. Typically, I think of viruses as having three components.

1. Firstly, viruses contain their own genetic material, obviously. Viruses are basically just little capsules of **genetic material, either in the form of DNA or RNA**. They do not have the other internal machinery that a mammalian cell has. They do not have mitochondria or other intracellular organelles, and they do not have a lot of internal machinery. They really just have their genetic material, and sometimes they have enzymes enclosed within them. But they are mostly genetic material, maybe with a few enzymes.
2. Secondly, surrounding and protecting the genetic material on the inside, viruses have an external *capsule*. Often it is called a **capsid** that surrounds the genetic material.
3. The third part that I think is important to understand about viruses is that they always have some type of **structure on the outside which functions as a *key*, or a *receptor*, or an *anchor*—some way to attach to cells and then enter into them**. Viruses can really only function once they have entered into a another cell, whether that other cell is a plant (in the case of plant viruses, such as the tobacco mosaic virus), or a mammal—a cat, or a dog, or a human. Viruses have to enter into a living *more complex* cell, and they cannot just enter into any cell; they have to attach in a very specific manner, by connecting their external structure to a compatible receptor or protein on the host cell. Some type of molecule on the surface of the virus has to fit onto the host cell, like a key entering a specific lock. That is how the viruses enter into what becomes now the ***host cell***. This is the "key and lock" model or "anchor-receptor" model.

So again, in review: viruses are genetic material surrounded by a capsule—capsid is the proper name—and they have some type of structure on the outside that allows them to hook onto whatever cell they are trying to enter into. In the case of this coronavirus that we are dealing with in 2020, it has what's called a **spike protein** on the outside, and that's how these viruses attach to and then enter into human cells. The spike protein attaches onto a receptor—probably more than one receptor can receive that spike protein—and the one receptor that gets the most conversation is called ACE-2.

Cavin Balaster: Okay.

Dr. Alex Vasquez: So that's basically how viruses function. And that's how they enter into cells. And then they hijack the internal machinery of the cell. Because like I said, viruses don't have their own machinery. They have to use the machinery of whatever the host is.

Cavin Balaster: Mm-hmm (affirmative).

Dr. Alex Vasquez: So they enter into the cell and then they basically take over; this is like a coup d'état or a dictatorship take-over of the cell. And then they say—if we are to imagine a virus speaking, the virus announces to the cell, "I'm taking over and you're going to do my work for me. And you're going to reproduce me tens of thousands of times until you die." And then the cell, which is now reading the genetic material of the virus instead of the host or human genetic material, produces a huge quantity of virus particles, then the cell usually explodes and releases all these virus particles. And that's how viruses are said to perpetuate themselves—by forcing the host cell or the human cell to read the genetic code of the virus and reproduce the virus.

Cavin Balaster: Got you. So, it's basically a hijack situation of your cells.

Dr. Alex Vasquez: Yes—you could think of it like a carjacking. You have got a human cell doing its job, whatever that is, and then it gets hijacked or carjacked by this virus. And then the virus says, "I'm taking over and you're going to do what I want." So at least that's how it works for a while, until so many new viruses are produced that the cell dies, the new virus particles are released, and the cycle repeats, now on an amplified scale.

That's pretty good analogy. And then—to complete the metaphor—your immune system is the police, and your immune system has to come and kill, basically blow up the hijacked car. That immune response usually kills the human cell as well. But that does not matter too much unless it is an important and irreplaceable cell such as a brain cell, then that obviously does matter. Most cells such as in the throat and trachea (windpipe) are easily replaceable; other cells such as in the brain are permanent and cannot be replaced easily.

Cavin Balaster: Right. Okay, so you wrote a book called the *Antiviral Nutrition*.

Dr. Alex Vasquez: Right. Right.

Cavin Balaster: Tell me how that came to be?

Dr. Alex Vasquez: Well, obviously I did not just wake up one day and write that book. I had studied for decades. I will try to give you the short story, but I will try to make it complete. When I was in chiropractic college, starting back in the early 1990s we had courses in Basic Microbiology followed by Clinical Microbiology, followed by Public Health and then a few courses in Pathology. I was somewhat fortunate for my first year and a half of chiropractic college that we had a lot of study in Microbiology. Many students just ignored the topic because they said, "Well all I'm going to do is musculoskeletal care." But I always studied everything to the maximum that I could.

So when I was a chiropractic student studying microbiology, I studied as much as I could and I wanted to understand this topic to a high level of detail; in this regard, my experience was probably different from the experience of most of my classmates. After I graduated chiropractic college, I went straight into naturopathic medical school and there I took another course in Clinical Microbiology and then Immunology, both classes for which we had an excellent teacher who explained to us—and forced us to learn and understand—the mechanisms of the immune system and the immune response.

Because naturopathic physicians are generally focused in on treating infectious diseases and immune disorders, our study in naturopathic college of Microbiology and Laboratory Medicine and Immunology was quite detailed, actually much more detailed than we received when I later attended medical school.

After graduation from naturopathic medical school, I practiced clinical care for six or seven years, then I went to osteopathic medical school, wherein I studied all of these topics again. So obviously I had studied Microbiology at this point several times and I had studied it quite a bit on my own.

In 2009 I published a book called *Chiropractic and Naturopathic Mastery of Common Clinical Disorders*, which has now been largely replaced by the 2016 edition of *Inflammation Mastery: Textbook of Clinical Nutrition and Functional Medicine*. In the 2009 book, I talked about treating viral infections for the first time in my work, which had previously focused on Orthopedics (bone and joint disorders) and Rheumatology (inflammatory diseases). In that book I started to organize a treatment strategy for virus infections. I didn't touch that work again until 2014 which is when the Ebola crisis was going crazy all over the place.

In 2014, with Ebola virus, acute flaccid paralysis, measles, and all the news about all these viral infections, I felt the need to address those concerns by telling the other side of the story which was never being told at that time.

The side of the story that wasn't being told at that time is obviously the impact that nutrition can have on the prevention of these diseases and the treatment of these diseases. And you'll notice by the way, that that hasn't changed. In all of the conversation that you see these days about coronavirus and influenza, you never see the official conversation include nutrition. Right? No one's saying on the news, "Oh, be sure that you take your multivitamin supplement." Even if it's a low dose supplement, they should still recommend something. And they are not doing that at all.

And from my viewpoint, that's a big reveal. The fact that **you're supposed to do everything to take care of yourself and to take care of your neighbors and your community, and you're supposed to shoulder responsibility for this, but not to the point where you would actually take a nutritional supplement.** The real and proven benefits of Nutrition are completely out of the conversation.

Cavin Balaster: Mm-hmm (affirmative).

Dr. Alex Vasquez: And that's ridiculous. That's ridiculous and it's irresponsible. But it also tells you who's guiding the conversation.

I was just going to make something up real quick. So here it comes. This is a good metaphor. I'll just go with the metaphor that I've got right now. Let's say a person is trapped in a car that's on fire. Let's say the doors are jammed or something, and the person is inside the car, and the car is on fire. And the official advice for you is to stay in your car and wait for the official fire department to come rescue you.

You would immediately see that as stupid. And you would say, "Well yeah, my door might be jammed but I could climb out the window. I don't have to sit around here and wait for your help, for your 'rescue'."

So why aren't people being educated about how they could empower themselves and roll down their window and climb out of the problem? That would be reasonable advice if this were a *fully legitimate* emergency. And I'm not saying that it is not legitimate in its entirety, or that it is completely illegitimate, but certain aspects of this problem and the solutions that people are being told to follow do not make sense. Why aren't people being advised about how to help themselves?

That same *fear-mongering* and *controlled and disempowering official narrative* is going on now in 2020, and it was going on back in 2014. And so I knew I had all this information on viral infections and nutrition, and I thought to myself now just as I thought to myself then, "People need to know about this information." So that's when I refreshed all the information that I had and put it in a separate little book, *Antiviral Nutrition*, and I included the information in some other larger books because usually I just write big books, not small books. But in this case, I broke out and wrote a small book, *Antiviral Nutrition*.

Well, that was 2014. I think it was October 22nd when I published that book. And I just got a message this week on Tuesday, midnight from Amazon saying that they were pulling the book off the market. Of course, I was shocked at the absurdity and implied insult of this.

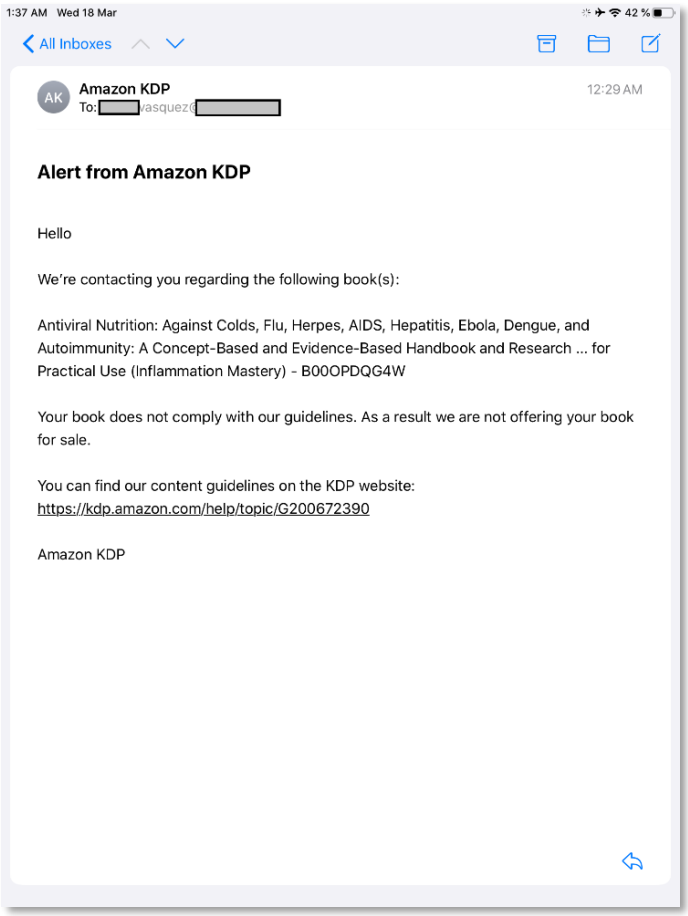
The book has been on the market for six years. It has five-star ratings. It's a "#1 Best Seller" in its category. And why is it getting pulled off the market right now?"—nothing has changed.

We could say quite reasonably that this little book *Antiviral Nutrition* has three important characteristics:

1. First is that it is totally based on research; that is essentially all I talk about throughout the entire book. All of the therapeutic components are referenced to research. The situation is not that I am telling people to drink some magic tea and their herpes will go away or something like that. I was very scientifically responsible in the book. The book has more than 270 citations, mostly to medical research.

2. Second, I wasn't anti-vaccine. I don't even know if "anti-vax" was a concern back then. But I guess it was otherwise I wouldn't have addressed it. I specifically stated in the book, I said, "None of this is anti-vaccine." At that time, I didn't care about vaccines, and I still don't care about them. The book was scientifically solid and it was not political. It wasn't anti-medicine or anything like that. Anybody who really knows me knows that I love medicine. Some of the best experiences I had in my training were in urgent care and emergency medicine. In fact that's what I probably should have continued studying and pursuing as a career. So it was pure science; it wasn't anti-medicine.
3. The third component, which may segue to the first one is the book was responsible. I wasn't promising anybody a cure. The book talks about all of the common virus infections, and obviously I'm not going to write one book with one protocol and say, "Yeah, this book in this protocol cures everything." I'm not going to do that, and no-one who is responsible would do that.

So, I was 1) scientifically responsible, 2) I was ethically responsible, and 3) I wasn't anti-anything—I was not anti-medicine, and I was not anti-vaccine. Regardless, they banned the book.



1:37 AM Wed 18 Mar

All Inboxes

Amazon KDP
To: [redacted]

12:29 AM

Alert from Amazon KDP

Hello

We're contacting you regarding the following book(s):

Antiviral Nutrition: Against Colds, Flu, Herpes, AIDS, Hepatitis, Ebola, Dengue, and Autoimmunity: A Concept-Based and Evidence-Based Handbook and Research ... for Practical Use (Inflammation Mastery) - B00OPDQG4W

Your book does not comply with our guidelines. As a result we are not offering your book for sale.

You can find our content guidelines on the KDP website:
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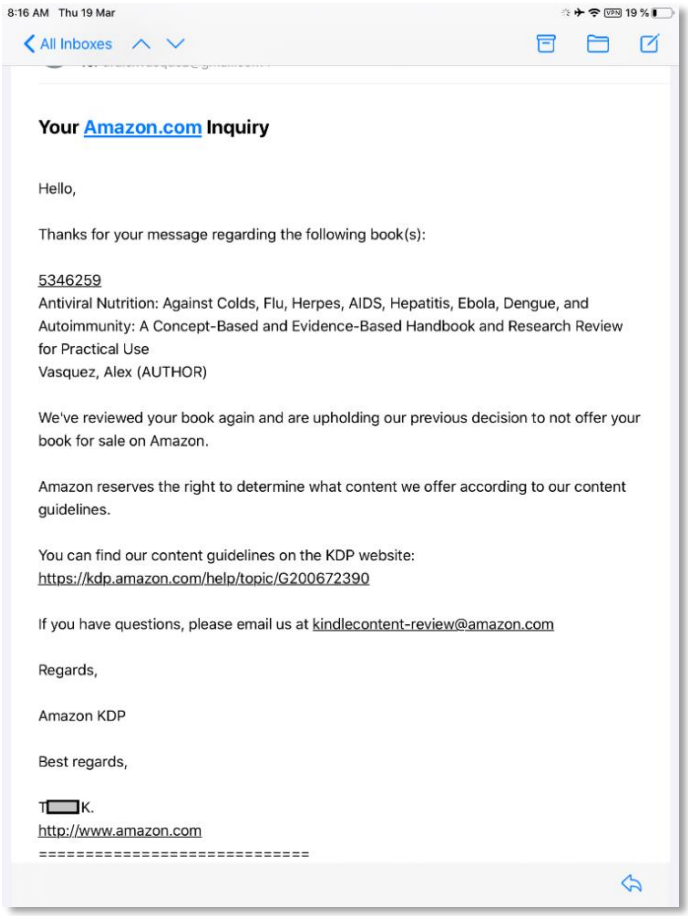

8:16 AM Thu 19 Mar

All Inboxes

Your Amazon.com Inquiry

Hello,

Thanks for your message regarding the following book(s):

5346259
Antiviral Nutrition: Against Colds, Flu, Herpes, AIDS, Hepatitis, Ebola, Dengue, and Autoimmunity: A Concept-Based and Evidence-Based Handbook and Research Review for Practical Use
Vasquez, Alex (AUTHOR)

We've reviewed your book again and are upholding our previous decision to not offer your book for sale on Amazon.

Amazon reserves the right to determine what content we offer according to our content guidelines.

You can find our content guidelines on the KDP website:
https://kdp.amazon.com/help/topic/G200672390

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Regards,

Amazon KDP

Best regards,

T[redacted]K.
http://www.amazon.com
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Cavin Balaster: They pulled the book. They banned, censored the book.

Dr. Alex Vasquez: ... this week. I wrote them back and I said, "What's the problem here? This book has been for sale for six years. It's got five-star ratings. I'm a credentialed professional. It's not like I'm making this stuff up. 270 citations." And they said, "We've made our decision and we decide what we publish and what we don't. And what we sell and what we don't and we're not going to sell your book anymore."

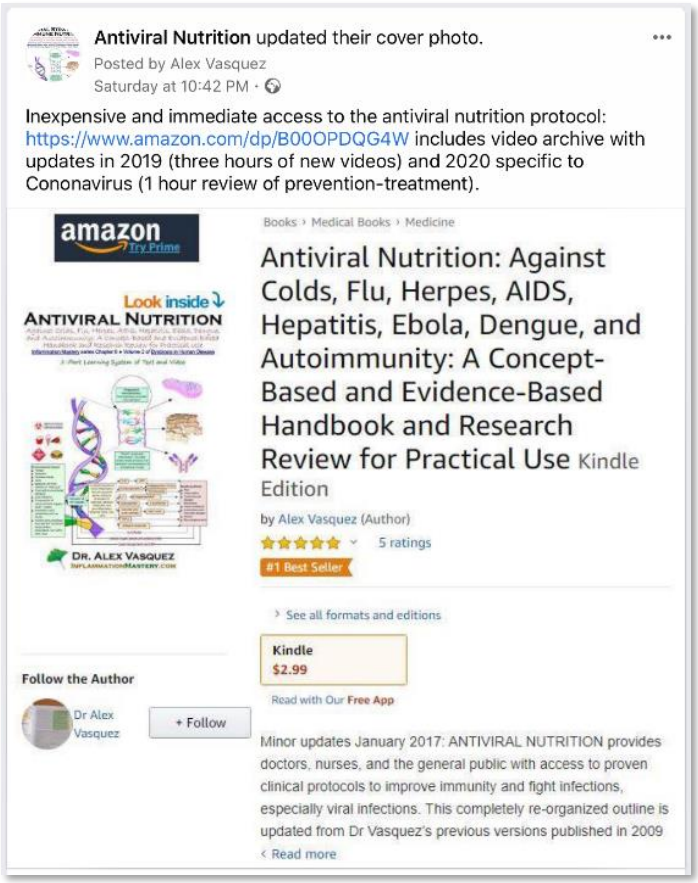
Cavin Balaster: Wow.

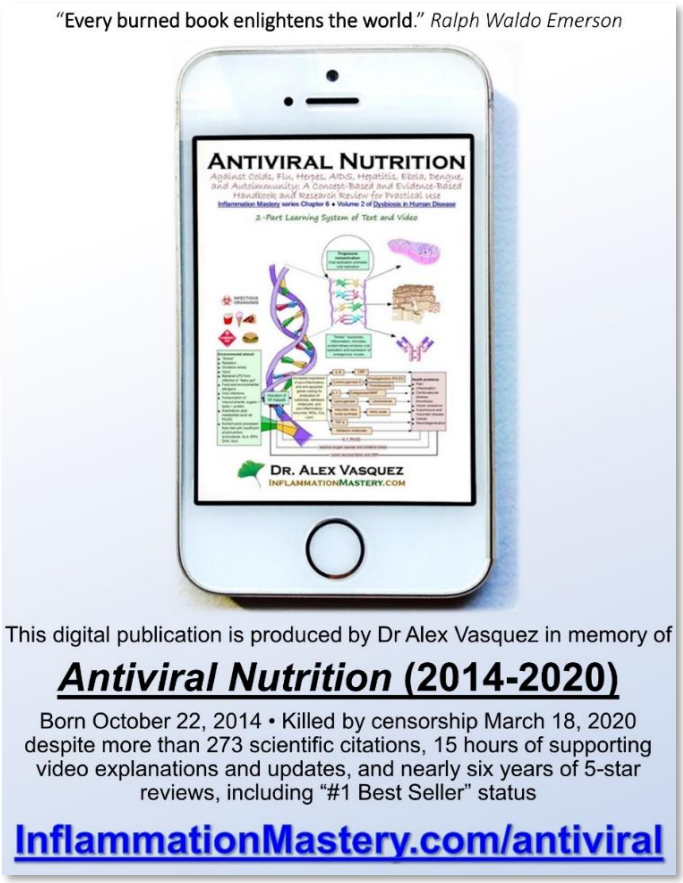
Dr. Alex Vasquez: I thought that was ridiculous because I'm sure I could go to their store right now and find articles and books and videos—not simply descriptive information but supportive information on how to be a sociopath. They've got books on hate crimes—not simply describing them but advocating

them. **They sell books that advocate hate and racism and pedophilia and all this stuff. But they won't sell a book on nutrition for preventing and treating viral infections?**

Cavin Balaster: Right, right.

Dr. Alex Vasquez: I mean come on. So that was the situation this week. Like I said, I got that message at midnight on Tuesday. And then Wednesday and Thursday I took the same files, the same digital files, and I turned it into an ebook that people can download from the link on my website at InflammationMastery.com/antiviral.





After six years of 5-star ratings on Amazon.com including status as a "#1 Best Seller" ***Antiviral Nutrition*** is now available as a PDF download from https://inflammationmastery-com-ichnfm-org.dpdcart.com/product/192836

Cavin Balaster: Good.

Dr. Alex Vasquez: ... to sell online: https://inflammationmastery-com-ichnfm-org.dpdcart.com/product/192836

Cavin Balaster: Good. I want to talk more about the virus for a minute and then I want to back to the political and financial things and why your book was pulled and things of that sort. But I want to ask you some more about viruses.

Dr. Alex Vasquez: Sure.

Cavin Balaster: Talk about what a virus is. What is a coronavirus?

Dr. Alex Vasquez: The basic structure of viruses is the same throughout. I guess we could probably find some exceptions but generally you've got genetic material surrounded by a capsid and then you've got some type of external structure which interfaces with the environment. With coronavirus they call it the "spike protein" on the outside. Which that probably is a bit of a reveal as well in my opinion. If you actually look at the structure—and I'm sure you've seen pictures of the coronavirus—they show these extensions on the surface. In my opinion, it's not really a spike, it's more like a club or a clover because it's got a round tip to it. Spikes don't have round tips to them; usually they are sharp. So, I think the name is wrong to call it a "spike." They could have

called it a *club* or a *clover* or a *key*. Calling it a key would help people understand it more so than a spike. What do you think? When you think of a spike, what do you think of it? It sounds kind of dangerous. Right?

Cavin Balaster: Right. Dangerous.

Dr. Alex Vasquez: A spike is something potentially dangerous, but in this case, it is not an accurate description of the physical structure. A spike is potentially scary. So, I think even the way that the structure has been described has a tone to it. It's like you're supposed to be scared of this thing. Coronaviruses, back to your question, so coronaviruses are a family.

Cavin Balaster: Right.

Dr. Alex Vasquez: You've got the Smiths and the Davises and the Joneses, and you've got the **coronaviruses**; they are a **family of viruses**. They commonly infect humans. **When people get a cold, so-called upper respiratory tract infections or a "common cold", 15 to 30% of those are coronavirus infections**. Therefore, most people of adult age have already had coronavirus infections. But in this case, this happens to be a coronavirus that has mutated, and we can reasonably state it appears to be more aggressive.

Cavin Balaster: Is that what the 19 signifies?

Dr. Alex Vasquez: No, the 19 just signifies the year because it mutated in 2019 theoretically, and that's when it became an issue. So it's just an identifier.

Cavin Balaster: Gotcha. And so is SARS a coronavirus?

Dr. Alex Vasquez: Right. So the first SARS coronavirus I believe was identified in 2003. SARS is an abbreviation for Severe Acute Respiratory Syndrome. The first SARS-1 was back in 2003 and now we've got SARS-2. Again, coronaviruses are common, with several different types. Sometimes they infect humans, sometimes they infect animals, sometimes they infect animals and then humans. Sometimes they only infect animals, such as with the pig coronaviruses that only infect pigs.

Coronaviruses are a big family of viruses with a couple of bad actors, some of them are relatively benign and wimpy and they cause a respiratory infection that lasts a couple of days—no big deal. Sometimes they mutate—or let's just say if we're going to extend the metaphor, let's just say they get a bad attitude or they get drunk or whatever, and they want to fight and beat people up. That's what's going on right now. We have a more aggressive coronavirus right now apparently, than what we've had before.

Cavin Balaster: Okay. And it's more contagious than before is my understanding.

Dr. Alex Vasquez: Well, yeah, we could say that.

Cavin Balaster: Okay.

Dr. Alex Vasquez: But obviously I don't want to say that. What does contagious mean? That's what people say about this virus, but what does it mean? **Contagious implies a relationship**. Right? **A virus can only be contagious if the host is susceptible**. If we were to say "the virus is more contagious" then we are putting all the blame on the virus and we're giving the virus all the power. **The virus can't be contagious if the host isn't vulnerable**. If we're really going to think and if we're really going to use language appropriately, then we can't just say the virus is more contagious—period, end of description. You have to say the virus is ***more contagious*** among a ***vulnerable population***. Now, if 100% of people are vulnerable to that infection or that acquisition of the virus, then you could say, "Well yeah, it's a characteristic of the virus. Human defense has no place in this. There's nothing we can do and we're just going to die." But that's obviously ***not*** the situation. Is it more contagious? Yeah, it probably is. Maybe it is. But are some people relatively immune to it? Yeah, obviously. Do some people get it and they have such a mild encounter that they don't even know they have it? Obviously, yes. In fact, the majority of people have really mild symptoms or nothing. So, do you care about a virus that's very contagious if it doesn't hurt you? Do you know how many viruses you have in your body right now? Probably in the hundreds.

Cavin Balaster: Mm-hmm (affirmative).

Dr. Alex Vasquez: Do you care about that? Nobody cares unless they are vulnerable to it and unless it is causing them harm. A recent scientific article states that mammals—including people, humans—have

hundreds up to hundreds of thousands of previously undiscovered viruses.[1,2] Does anybody care about that? No, because we're obviously living in some harmony with those viruses.

Cavin Balaster: Right.

Dr. Alex Vasquez: So again, is this virus more contagious? Maybe it is. Do host factors play a huge role and whether that makes any difference whatsoever? Yeah, obviously it makes a huge difference. Everything has to be contextualized.

Cavin Balaster: Right. What their big concern is that if we're not susceptible to it, we can still be a host to it and can we pass it on to people who are more susceptible to it?

Dr. Alex Vasquez: Yes, I think that that's probably true here. That's true of most virus infections—they start with an incubation period wherein the virus is replicating but the immune response has not kicked-in yet so the person does not feel symptoms even though they are possibly shedding the virus. This is called ***asymptomatic shedding***, and it occurs in various viral infections including herpes.

Cavin Balaster: And that's my biggest concern with it: passing it on to others.

Dr. Alex Vasquez: Right.

Cavin Balaster: And so yeah, I'm all about keeping it at bay. And at the same time, there are some extremely drastic measures being taken to do so. That have huge, huge implications happening worldwide.

Dr. Alex Vasquez: Right.

Cavin Balaster: Do you think these are an appropriate response at the moment?

Dr. Alex Vasquez: Well I'll give you my opinion. An article was just published by John Ioannidis MD DSc, an epidemiologist and statistician at Stanford, and he said basically we have no idea what we're doing internationally and nationally because not enough testing has been performed either nationally or internationally.[3] He said in essence, "We don't have real numbers, we don't have good testing. We haven't tested enough of each given population to know how common is this?" We don't have the numbers basically. And if we don't have the numbers then we have no idea what we're doing. We can **guess** and we can be **scared** and we can all **hide in the closet**. ***But the fact is we don't have the numbers.*** Maybe 80% of the people have this virus and only a small fraction of those people actually get sick and even a smaller fraction die. If that were the case, then do we all need to be on quarantine for that reason? I would say probably not. What we should be doing is testing more people so that we truly have numbers about prevalence—how many people have been exposed and infected, and morbidity and morality rates—of the number of people exposed (total cases), how many of them actually get sick (morbidity) and how many of them actually die as a direct consequence (mortality)—not simply "associated deaths" but direct causal deaths. Further, we need to think beyond the simplicities and simplifications of hand-washing and social distancing. We need to think like the naturopaths do and engage in strengthening host defenses. What the naturopathic profession has always done is look at host vulnerability and host factors. Instead of saying "some people get it and some people don't", ask the next question, which is ***why do some people get it and some people don't***? Not simply age. Why do they talk about age so much? Why do they say kids are immune and old people get it? ***What's the advantage to that narrative*****? The advantage to them for repeating that particular narrative is you can't do anything about it—it appears like information but it actually does nothing more than disempower people and give them a sense of confusion and ineffectiveness.** Let's assume it's correct that children are relatively "immune" and older people are vulnerable to this infection. We have enough data to support that conclusion. **Look at how the data is very selectively administered. The data given to people is the data that doesn't empower them.**

Given that children have been relatively immune to this coronavirus (SARS-CoV-2) while elders have been clearly more vulnerable, what we should be focusing on in this conversation are the protective factors that we see in kids that we don't see in older people, and the reverse—factors in elders that make them more vulnerable. What happens as people age, as people get older? Their hormones change; their melatonin levels go down. Kids have a lot more melatonin than do older people, and as I discuss in *Antiviral Nutrition*, melatonin has a wide range of antiviral and immune-supportive benefits. As people get older, and they have other

problems, sometimes their immune systems are just worn down from a lifetime of inflammatory foods and infections and nutritional deficiencies. Well, we can change those things. Instead of just saying, "Well, people are more vulnerable because they are older", we should seek to gain insight into the disease by understanding these details and differences.

What is age other than years? I mean, obviously it's years, but what goes along with those years? More drugs, more diseases, more nutritional deficiencies, quite often, institutionalized food, things like that. So, **you can decipher the language here and break it down and see what they are telling you and what they are not**. I think that if we were to identify those **host vulnerability factors**, we could get some insights into how to manage this.

Cavin Balaster: And this is what you've done a lot of in your *Antiviral Nutrition* book.

Dr. Alex Vasquez: Right, exactly. So of course, we're all watching this, and we're all trying to follow whatever the new developments are. But some things aren't going to change. Just because we have this virus now for four months doesn't mean we have to rewrite all of the medical history and all of nutritional science and everything else. It doesn't rewrite physiology forever. Many things we already know and most of those things we can use right now: how to stimulate host defense, how to strengthen barriers, how to reduce viral replication, how to address the consequences of inflammatory challenges. We have treatments for each of those components of a viral infection.

Dr. Alex Vasquez: **A viral infection is not a single event that exists as an indecipherable phenomenon, but rather it is a series of events and consequences that we can understand and—largely—control or at least influence to our favor by use of nutritional interventions.**

This past week, I had to reformat and redistribute *Antiviral Nutrition* after the original ebook got censored for no reason. So, that cost me two days of work. Today is my first day to get back to actual science and writing and working on what is going to be another publication, an extension of *Antiviral Nutrition* specific to coronavirus, which will probably be called something really creative like *Coronavirus Antiviral Nutrition* or something like that; of course, I will post the details and availability at my website InflammationMastery.com/antiviral. I will have to publish it as a PDF that people can download, to avoid getting blocked again. Obviously self-publishing a PDF is much faster, and I can control the price and I can make it available in two hours or one hour once I get it finished. Whereas, if I go through a publisher and editing and proofreading and page setting and formatting and designing the cover, that process would cost me and everyone else who can benefit at least an additional two to three months. That would be a delay that's actually bordering on irresponsibility.

I am working on this information now and—yes—I'm obviously looking at everything with open eyes for a new perspective because anytime I address a topic, I don't just recycle my own ideas. I have to look at it from scratch, and I am doing that now with coronavirus. But, while I'm doing that with coronaviruses generally and this coronavirus in particular, I'm also seeing that a lot of things are going to be staying the same. Vitamin D, NAC, licorice have already been documented to have some effectiveness against coronaviruses generally or the particular SARS-1 from 2003. Does that mean it's going to be effective in inhibiting replication and entry of the SARS-2 virus? It doesn't mean that, no. That data is now 17 years old and was performed on other but related coronaviruses. We cannot say that the data that applies to SARS-1 applies to SARS-2, but it ***most likely*** applies.

Cavin Balaster: SARS-1 and SARS-2? This is SARS-2. This is another SARS coronavirus?

Dr. Alex Vasquez: Yes, correct. This is a mutated version of the previous one. I think they are 82% identical. I did see that number, I hope I'm quoting it correctly, that they are 82% identical.

Cavin Balaster: That's pretty close to what Dr. Silverman said as well.

Dr. Alex Vasquez: Well, the other thing is, viruses as a group have enough similarity that if we can target one, usually we can target its relative with some degree of effectiveness as well. But the other important point is that the *Antiviral Nutrition* strategy really doesn't depend on the vulnerability of the virus. The whole idea of using a host-targeted program is that it targets the defenses and the machinery of the host.

In contrast, ***the drug model***—and I say this in the book and I said it in one of my recent presentations—virtually by definition, ***targets the virus***. They want to target the spike protein; they are going to target the enzymes inside the virus. Why do they do that? **That's the drug model. They want to sell a different drug for every virus that's out there. They want to sell a different vaccine for every virus that's out there**.

If we, collectively, work to simply strengthen host defense against a lot of these infections, we could probably alleviate or avoid most of them or certainly mitigate and minimize them, and then we would not be so dependent on antiviral drugs necessarily. Like I said, I'm not anti-medicine, I'm not anti-drug. I love drugs. That's why I loved working in Urgent Care and the hospital Emergency Department when I did, because when somebody comes in with a problem, that's the perfect time to rescue them with drugs. You can keep people's blood pressure up, you can reduce their inflammation, give them huge doses of steroids. Sometimes that's what people need in emergencies. That's one of the beautiful things about Emergency Medicine.

I'm not saying that we would never use these antiviral drugs, but we could help them work better if we use nutrition along with them. Because then we'd be supporting the host while we're attacking the virus. Perfect. **Right now, all they want to talk about is targeting the virus while leaving the host weak.** Well, I don't think that's a good strategy. Anybody could get killed by a Chihuahua if they are weak, but if you're strong and you've got good defenses, then that Chihuahua becomes irrelevant. That was good metaphor. I'm rocking.

Cavin Balaster: You're full of them, Dr V.

Dr. Alex Vasquez: I'm rocking the metaphors.

Cavin Balaster: That's what your nutritional program, *Antiviral Nutrition* is about: building up the host defense. It's about taking care of you—the human, your immunity and your resilience to an infection or to a particular virus. And I just wanted to say that Dr. Vasquez has this available on his own page, and I think you have really inexpensive right now, right?

Dr. Alex Vasquez: Yes, it's $3.

Cavin Balaster: $3. Perfect. I'll post that in the comments.

Dr. Alex Vasquez: Thanks. $3 is obviously pretty cheap; it should be more like $12 or $15 at least. But that's what it is right now. So I'll keep it that way until April, probably.

Cavin Balaster: Yes, so, we are building up the host defenses instead of trying to attack the virus, which is fine. We can go after the virus as well. But let's build up our immunity and that's where the nutritional protocols come into play. And this is interesting because your book on nutrition to build up the host defense has been taken off of Amazon without explanation.

Dr. Alex Vasquez: Correct.

Cavin Balaster: And what are your thoughts surrounding that? What are the politics of this kind of pandemic?

Dr. Alex Vasquez: Oh, well, that's the big question. I don't have any specific insight and I don't have any conspiracy theories. But I've got open eyes and I can read and I can see things. So anytime major systems undergo major turmoil, that's a big opportunity for somebody else to gain power in whatever the dynamic is. Whether it's a market for this or a new product for that, or covering up some other conversation. When we started talking a few minutes ago, I mentioned the Ebola event that was going on in 2014. Well that conversation disappeared immediately after certain governmental elections that took place in the US, and you can see this from the political news website *PolitiFact.com*. What you see with the Ebola virus conversation in 2014, which *PolitiFact* called "The Lie of the [4]Year", we saw this huge ramping up of conversation about Ebola and then it disappeared immediately after certain governmental elections. Well, so what does an event like that do? How do people vote when they are scared for their own survival? Do they vote for free education, improved infrastructure, mass transit, time off from school or time off from work? Or do they vote for more military and police "protection" and for pharmaceutical subsidies? The answer is obvious. When people are scared, they vote in different patterns. Who benefits from that? The answer to that question is pretty obvious as well. And now, we are in an election year. United States is having an election year and now guess what? —We have a huge emergency.

What do people do when they are scared? They "rally around the flag"; they stop asking questions and they become more willing to submit to authority and to have their rights and liberties restricted. Conversations get limited, and we see more censorship. I have to believe that I just got censored this week; I mean obviously I did. They pulled my *Antiviral Nutrition* book from the market during the obviously biggest viral pandemic we've had in our lifetimes. That's not just a coincidence. Somebody structured that. Obviously, a lot of politics are involved in everything right now.

Cavin Balaster: A lot of politics are involved. Clearly some things aren't quite adding up. And when things aren't quite adding up, there's a lot of things to explore. I'm so appreciative that I have the opportunity to speak with people like you who can really dissect and look at what's going on. Because what happens with people when they are scared is they get into their limbic brains and when that's firing, their frontal lobe [executive intellectual functions] just shuts off, right?

Dr. Alex Vasquez: As if it were working previously, but it's certainly not working now.

Cavin Balaster: Precisely. And so taking a look, stepping back, regulating your nervous system and actually taking a look at what's going on is so important in times like these. And what I also often see around elections and pandemics, like the same divisive, antagonistic situation, when people just start attacking each other. And it becomes the limbic system fighting other limbic systems. And that I think is part of the politics of this pandemic—this fighting, battling situation. And the fact that it is more contagious, our emotions and our energies and the attacks on each other are far more contagious than a virus, even coronavirus.

Dr. Alex Vasquez: Yes. Well, I think something that a lot of people sense—and something that you alluded to just now—is: people are smart enough to know when something's not right, when something does not make sense.

Cavin Balaster: Totally.

Dr. Alex Vasquez: But a lot of times, I guess I just have to say this the way that it occurs to me, a lot of times people are smart enough to *know that something's not right*, but they may not be sophisticated enough to *figure out and identify what that problem is*. And that's happened to all of us. It's happened to me. I've been in situations where I know something's not right, but I don't know what it is. But the third step would be to have enough knowledge along with enough sophistication to be able to create an alternate narrative or to create an alternate solution.

The problem and solution that are being offered to people right now is that they are trapped in a burning car and they are supposed to wait for the fire department to come and get them out of the car. Obviously people are going to start being scared and irritated and outraged with each other. So, let's just go with the metaphor. Let's say you've got a person—and this is an unfortunate metaphor, but it's actually somewhat accurate—let's say two people are trapped in a burning car and the police arrive and the doors are jammed and the police say, "Stay in your car until the fire department gets here." Well, if one person is the driver and the other people are the passengers, they are going to look to the other people in the car and they are going to say, "Get me out of here. Do something. Why aren't you doing anything?" So, very commonly, we easily become irritable and we put the blame on other people to solve our problems when we don't know how to solve our problems, even if all we need to do is calm down and roll down the window and climb out the window.

What if this has a simple solution? And I'm not suggesting in this conversation right now that it does. I'm not trying to say, "Oh well, this is a simple problem and I have a solution." I'm not saying that. But I'm saying generally, what if this problem has a simple solution? See, that's part of the medical paradigm. Are you ready for this? I don't know if you're ready for this. Here it is. ***Part of the medical paradigm is that "serious" problems require "serious" solutions***. So, let's assume this is a serious problem. Let's assume everything they say is correct. It's contagious. We've never seen anything like this before. We don't know what's happening. That's all nonsense anyway, but let's say it. Again, ***part of the medical paradigm is fear, concern, serious problems require serious measures***.

So, for example, cancer is a serious disease. From the medical perspective, it requires serious treatment, which is obviously chemotherapy, radiation, and surgery. That's about as

serious as it gets in the medical world. ***The idea that a serious problem could have a simple solution is virtually unheard of in medicine***. I will give you not only a good example; this is virtually the perfect example.

In many parts of China, the people developed a heart disease called Keshan disease. I think it mostly affects kids, but it is a fatal heart disease that affects kids in certain parts of China. It's caused by an enterovirus, which is a virus that typically affects the intestines, that travels from the gut and embeds itself in the heart and causes this heart disease. It's not cardiovascular disease, it's a disease of the muscle itself. This type of heart disease is called a cardiomyopathy, which is a disease of the heart muscle. The name of the virus is Coxsackievirus-B, I believe. It's a mutated Coxsackie-B virus. That's a **serious problem** affecting, let's say millions of people. What's the **solution**? What has been defined as the solution to that problem? **Nutritional supplementation with selenium**. Why? Because the Coxsackie-B virus can only become pathologic in this context, if it's mutated, and it mutates in a host who is deficient in selenium. And that of course only happens if the food and the soil is deficient in selenium. And that's what China is famous for. The terrain of China is famous for being deficient in selenium.[5] That's part of the reason why you see these diseases coming out of China. And I'm not being racist or ethnocentric or whatever. I'm just stating a fact. You can look it up. I'll document it in my book on *Antiviral Nutrition for Coronavirus*. The terrain of China is deficient in selenium and that makes the population there of humans and animals more vulnerable to viral infections. That's why you see the Asian flu. That's why you see the Hong Kong flu. And that's why you see this new coronavirus from China.

Dr. Alex Vasquez: So again, what was the problem? The problem was this muscle disease of the heart, cardiomyopathy in the Chinese population. What was the cause of it? A viral infection in the heart. What was the cause of the viral infection? Selenium deficiency. They started supplementing their population with selenium and this disease virtually disappeared.[6] Also, for people who have the heart disease, Keshan disease, treating them directly with selenium alleviates the heart disease.[7] So it's not only for prevention, but it's also for treatment.

Cavin Balaster: That's a lie that many people believe for just about everything. The size of the problem is proportional to the size of the solution or the complexity of the solution. And that's not the case. It's almost never the case. If you have the solution, then you just implement it directly.

Dr. Alex Vasquez: Right. Let's go with a quick metaphor, another one. I'm going to bust out another quick metaphor. Let's say you've got a leak in your roof, right? You call a contractor and you say, "Hey man, I need emergency help. It's two o'clock in the morning. I'll pay you extra if you come over here and fix this leak." And the contractor shows up and he says, he or she and says, "You need a whole new roof. I got to replace this roof. I'm going to have to get overtime, extra crew here. We're going to have to replace this roof. We're going to start immediately. We're going to save you from this problem. We're going to be here on the job in the next hour. It's going to cost you about $30,000 but we're going to save your house. If you don't fix the roof right now, your whole house is going to get ruined."

Well that's the model of a big problem needs a big solution, right? The other model is you could get up on your roof and replace one tile and silicone that thing in for two bucks and you've got a solution, right? So, we all have to be careful when we're offered solutions that are very heroic because I'm sure part of this is like archetypical, from a Carl Young standpoint. We all have a little kid in all of us. Part of us wants to be rescued and fixed. Part of us wants to be redeemed. Part of us wants to be a detoxified. Part of us wants to be recovered. So anytime we perceive a problem in our world, we would all be happy to have somebody else fix that for us. And to be sure, sometimes we need external help; I'm not saying that we don't. But sometimes we can empower ourselves to solve our own problems.

Cavin Balaster: This is the entire point of what I'm doing these prospective series on is to help people to empower themselves during this time where there's the entourage of fear-based…I want to say marketing, but that's not the word. Fear-based perpetuation of fear essentially. And in times like this, it's very disempowering because what is fear? Fear is uncertainty about what's going to happen and it is feeling out of control. And as you and I have talked about, fear is a very profitable place. If you're scared, your roof's going to collapse, you're going to fork over the $30,000 to fix it. And people act on, they act from that place, from that fear space.

Dr. Alex Vasquez: Right. We could spend all day on that topic because people are programmed from a very young age in just about all cultures; they are programmed to be dependent, to feel insecure, to feel like they are defective and they need an external solution. So, I mean, that's part of the cultural programming that people get internationally. People at some point have to decide how much of that they want to carry throughout their lives.

So, another thing, and again I'm speaking generally and therefore what I'm saying may or may not apply to certain situations. But I do remember a book that I read many years ago, actually it was 1997, and one of the lines in the book was "For a prey to be vulnerable to a predator, the prey has to agree to take on the role of the prey."[8] And in some cases that's true, and in some cases, maybe it does or doesn't apply. I mean, all metaphors either apply or don't to specific situations, but you can still see some truth in that, right? If someone's in an abusive relationship, they've chosen to stay in that abusive relationship—they have agreed to be the prey. And at some point in time they can give up that role in the relationship; they can choose to leave.

Cavin Balaster: Mm-hmm (affirmative).

Dr. Alex Vasquez: Whether that's a romantic relationship, or a friendship that's toxic, or a ... a worker/employee relationship. But, **to remain in a disempowered position in any power dynamic is a choice**. It's not an absolute choice in all situations, you know? So, if a person wakes up one day and they've got the military police outside their house and they get executed, yeah, they probably didn't have a lot of options there. So, again, I'm not saying that all these solutions have, or all these metaphors apply to all situations. But I am saying that a lot of times, we can empower ourselves and maybe we're not omnipotent, we're not all-powerful just because we empower ourselves. I mean, it's not like people go from being victim to super-human all of a sudden. But, we can go from being victim to a bit more empowered and then a bit more autonomous and that doesn't make us superheroes. It just means we have more options and again, going back to the theme that we're focusing on today with the viral infections, you know, if people are ignorant ... and we're all ignorant. Ignorant and stupid are two of my favorite words; I don't just use those for other people. I use them for me! Like, we're all stupid…

Cavin Balaster: Totally.

Dr. Alex Vasquez: ... we're all ignorant and we're ... we're designed to be that way by society. The way social structure is: we're all designed to be stupid and ignorant and I'm saying that about myself, too, and I've got three doctoral degrees and I've published 100 articles and 35 books.

Cavin Balaster: Mm-hmm (affirmative).

Dr. Alex Vasquez: We're all designed *structurally* and *educationally* by society; we're designed and structured to be stupid and ignorant. But we can change that.

Cavin Balaster: So, I ... I love that you brought up ignorant because ignorance is so much... I think ignorance is like a super power. What we can ignore, strategically, like I'm not paying attention to a given topic. That's, that's a super-power. That's like choosing where attention is placed. So, yeah, I'm absolutely ignorant. I ignore a lot of material, and I just say, "That stuff that doesn't matter."

Dr. Alex Vasquez: Sure, so, but you're, you're talking about being, like, selectively ignorant and consciously ignorant. Like, "I'm going to ignore this email" or "I'm going to ignore whatever this problem is." I'm talking about being ignorant of *things that we should know* and that *we would benefit from if we knew them*. When I talk about people being ignorant, what I'm talking about is our being ignorant of those things we should know or that we would benefit from knowing.

Dr. Alex Vasquez: For example, why are all medical doctors structurally composed and created to be ignorant about nutrition? Why does medical education completely exclude the topic of nutrition? That's ignorance by design.[9]

Cavin Balaster: Right.

Dr. Alex Vasquez: Why do people graduate with the Bachelors degree or Masters degree or a Doctorate degree and they have no training whatsoever in problem solving or public speaking or leadership?

Cavin Balaster: Hm.

Dr. Alex Vasquez: Because the educational system, which is somewhat coordinated, you know ... it's not an accident. The educational system doesn't want people who are articulate, who can communicate their thoughts, who can write, who can create convincing arguments, who can deconstruct stupid arguments. So, I mean, we have to look at the way this whole system works.

That occurred to me just this past week, actually. I was thinking...so I've been through three Doctorate programs, you know, and all Doctorate programs, all programs talk about critical thinking and all that good stuff. That's all—that's all for the catalog; that's all marketing and ego-inflation. There is no critical thinking in these university programs. There can be levels of detailed thinking, but I've never seen critical thinking taught in any program I've been in. They teach volume. They teach perspective, sometimes. But they don't teach critical thinking.

So, something came up this past week—maybe it was this whole virus problem—and I was thinking to myself, "I don't see any active problem-solving going on at all." What we have is perception of problem followed by midbrain response to problem, which is *stay away from me*. *I'll stay away from you if you stay away from me* and *I want somebody to rescue me*. Like, that's the response that you're seeing to this problem. Social avoidance and they are waiting on drugs and vaccines. Well, I mean, can we as a species, can we as a global population do better than that?

Cavin Balaster: Totally.

Dr. Alex Vasquez: Some of us as individuals can do better than that. But I'm not seeing a species-generated solution. **I'm not seeing a planetary solution in terms of structured problem solving being applied to this problem and that makes me suspicious of the problem itself**. There's no thinking going on in this conversation beyond 1) simple sanitary measures, and 2) waiting for pharmacologic rescue.

Cavin Balaster: So what are some tactful things that people can do to empower themselves right now?

Dr. Alex Vasquez: Well, I'm going to answer your question in two different ways. One is generally and the other is more specifically.

1. So, any time we are presented with or we encounter or we discover a problem, the **first step is always identifying and defining the problem, characterizing the problem**. What is this problem? So, whether it's a leaky roof that we talked about before or somebody's trapped in their car and they can't get out, or they've got an infection. The first steps are **collecting data** and **raising awareness**. We have to have some awareness of what the problem is. So, step number one is define the problem as best we can. By increasing awareness of the problem and its major components, **we alert people to the problem and at the same time we engage others to begin thinking about it so that we broaden the description and the input of descriptive and interventional ideas**. In this situation, and part of my contribution for example is to increase awareness of the nutritional deficiencies that lead to reduced defenses and thereby increase peoples' vulnerability to the infection. For example, **zinc deficiency affects approximately 30% of the international population** and that state of nutritional deficiency clearly causes immune suppression, lowered defenses, and increases peoples' risk of infection, as I recently reviewed in videos available online: vimeo.com/396264153 and youtube.com/watch?v=R2jxtxTs9lA. The same is true of **deficiency of vitamin D, which affects up to 80% of institutionalized and hospitalized patients**, as I have discussed in videos vimeo.com/396007769 and youtube.com/watch?v=RjxQKmjM5v0 and which I reviewed scientifically and clinically in publications starting in 2004 up to 2019. [Available as a PDF compilation download from academia.edu/40429791]
2. Step number two is a little bit elementary. It's not even academic but I'm going to say it anyway, because it does apply to this situation. **Step number two, after identifying the nature and scope of the problem and the perceived consequence of the problem, step number two is identify all of the possible solutions**. I said *all possible solutions*—not just the ones that are most "obvious" because *seduction by simplicity and speed* is a popular route of error. All possible solutions—not just the ones that are profitable for drug companies and political friends.
3. Then, the third step is to organize those solutions in a hierarchical order of availability, effectiveness, cost, and safety and then determine which of those are appropriate for use in

this situation based on logistics and whatever other circumstances in each application. Again, in review: First, identify the problem. Second, create a buffet or a catalog of solutions. Third, implement solutions based on criteria of availability, effectiveness, cost and safety. Most people, even at the graduate and doctorate level are not taught this basic level of problem-solving. The only healthcare profession that speaks in these terms and has these ideas formalized as part of its identity is the naturopathic medical profession—in naturopathic medicine we call this the "hierarchy of therapeutics" and "therapeutic order" and it is one of the defining characteristics of naturopathic medicine.[10]

With this current situation, we haven't even gone to step two yet. We haven't even identified what the possible solutions are to this problem but we're already implementing the ones that are **most basic** and **most disempowering**.

Cavin Balaster: Mm-hmm (affirmative).

Dr. Alex Vasquez: Well, if that's what you accept, then that's what you get—the most basic, reflexive, simple-minded solutions. Who is advising the decision-makers? Military, police, and drug companies—so we see the only solutions being implemented are **social control** and **funding of drug companies, relaxing the already weak standards for the production of safe and effective drugs and protection of the public**.

Cavin Balaster: Right.

Dr. Alex Vasquez: So, going back to your question. *What could people do about this situation that we're in*? Social distancing—I actually like social distancing; I use it as a lifestyle so I'm okay. I'm home now. But, I have the social and cultural luxury of being able to stay home and having a home to stay in, for one thing.

Cavin Balaster: Yeah.

Dr. Alex Vasquez: And for us, living in a safe home was also by design. We moved out of the big city a couple years ago because we thought, "You know, things are getting weird. And if, if things get more weird, we need to be someplace that's safe." So, now we have that, through some combination of work, good choices, and luck. We all have to plan ahead and be aware of trends. Anyone could have seen years ago, especially after 2001, that we were going to see more international chaos on a progressively regular basis, as reason and ethics were abandoned in politics.[11] I could see in 2002 that the economy was going to crash, so I was already well on my way to being better prepared—not *perfectly prepared* but *better prepared*—by the time the crash occurred in 2008.

So, what can people do? Sure, social distancing—I recommend it as a lifestyle, not simply in response to pandemics. That's a little bit of a joke. But, you know, the next step is ... here's the thing. Let's just go back to Algebra and Geometry. You know? I think I studied that when I was 14 or 15-years old. One of the only things beneficial to learning anything about math beyond basic math is when we have to solve equations that have two variables. If you have a single equation that has two variables, you're going to have a very hard time figuring out the solution. But if you have ... if you have an equation that has one variable, you usually can figure it out. You just look at it and you just run the thing backwards and sideways and you figure it out. In this case, here's my point. In this case, we've got an equation that has two variables and we cannot solve that equation because we don't know what X is and we don't know what Y is. Yet, with more time, we're going to figure out what X is—let's just say X is the virus in this conversation. In more time, they'll do more tests, more studies, and we will be able to characterize this virus. We'll be able to say, "Oh, yeah, it's really contagious" or whatever. But again, like I said about the word *contagious*—you can't read that word or say the word *contagious* without respecting the fact that *it represents a relationship*.

Cavin Balaster: [inaudible 01:06:47].

Dr. Alex Vasquez: So, nobody...no intelligent person, if I can go that far with it, no intelligent person who really is trying to talk about this and communicate...no one can say that X is contagious or whatever. I mean, we can kind of say that in some senses. Some viruses are more contagious than others, that is a fact. But, it always depends on the host, as well. HIV-AIDS, for example, isn't really very contagious, thankfully. I mean, sure, people can pass it on to each other, but it's not *radically* contagious. Hepatitis C is very contagious. Measles is very contagious. So, those are viruses that,

that typically win the initial battle and are able to gain entry into the host. They have a good chance of getting in and starting an infection. But again, we still have to look at the host factors, and that's the other variable in the equation. So, X is the virus, and Y is the human variable. Right now, we don't know how to define X, but we can do some things to help define Y. And we can take action to help to strengthen our own defenses.

Step number one in my *Antiviral Nutrition* book is strengthening barriers so that our skin and mucosal membranes are well defended. So that requires nutrients such as Vitamin A, Vitamin D, Zinc, also B-vitamins, of course.

Step number two is what we can do to inhibit viral replication. What can we do to inhibit viral replication? I know how to inhibit viral replication using nutrients because I've studied it now for 10 years. So, we can do certain things to inhibit viral replication. Some of those strategies work better for DNA viruses versus RNA viruses, but they all still work to some extent. Coronavirus is an RNA virus, so it might be a little trickier.

Step number three in my program is strengthening immune defense and that's what we talked about—that's what you and I have mentioned a few times back and forth. That's not the same as strengthening barriers. So, barriers is step number one. Step number two is replication. **Step number three is immune response**. **Immune response has two broad components to it. Immune response is immune defense, which is your immune system attacking the virus or creating antibodies or engaging in cell-mediated immunity. That's immune defense. But the immune response has another component and that is the ability of the immune response to self-regulate and reduce excessive activity of the inflammatory response.**

So, for example, in the medical model, you want a strong immune response. That's why they put adjuvants in the vaccines. They are trying to create more inflammation. But the reality is actually different from that. You want to strengthen defenses, but you also want an anti-inflammatory component to that response.

Cavin Balaster: You want to mediate that response.

Dr. Alex Vasquez: Right, you want to mediate it. You want to *modulate* it. You want to control it. You want to *promote* ***tolerance***. At the same time that you're promoting defense, you also want to promote **tolerance**. *Well, shazam!* That's what we can do with nutrition that we can't do with drugs.

So, for example, Vitamin A strengthens defenses, but it also promotes tolerance. Vitamin D promotes defenses, and it promotes tolerance. N-acetylcysteine (NAC, acetylcysteine) is another really good example. N-acetylcysteine promotes tolerance, and it promotes immune defenses at the same time.

So, here we are in this current situation: we've got this virus that we haven't completely defined. We don't understand it. Nobody understands it completely. Yes, eventually they'll define it, and they'll give us some descriptions. **None of that is going to change the fact that we can still modulate the human part of that equation *now***. **We could immediately emphasize certain treatments or certain nutritional supplements more than others based on previously studied infections**. So, for example, for Herpes infections, the licorice root extract glycyrrhizin works very well, and for SARS infections—I'm talking about SARS-1 in this case—licorice also works quite well. In the case of SARS-1, licorice has been shown to **inhibit viral entry** and it also **inhibits viral replication**. With herpes virus infections, licorice works extremely well through a slightly different mechanism in that it **supports immune defense against the Herpes through increased production of interferon**, and also the component of licorice called **glycyrrhizinic acid or glycyrrhizin actually appears to bind directly onto the herpes virus**. In that sense of targeting the virus directly, licorice functions almost like a drug against herpes virus. It's almost like a target getting hit with an arrow.

Therefore, if licorice's glycyrrhizinic acid binds to and inhibits the herpes virus particle directly, that's not necessarily also true for influenza virus or hepatitis virus or HIV. So, like I said previously, viruses have their characteristics and our treatments also have their own characteristics, which may apply more or less to a given type of infection.

But, regardless of that, certain things—like I said at the start—**certain things aren't going to change**. You have to have zinc in your system in order to have a competent immune

response. Zinc is directly antiviral for viruses such as rhinovirus, but also, zinc specifically inhibits one of the coronaviruses.[12]

Let me go to the fourth point and then I'll summarize. **The fourth part of the overall treatment strategy is supporting and restoring cellular health and also systemic health**. Again, the naturopaths do a really good job of that. The osteopathic profession actually has some good research on that as well. In osteopathic medicine, we have certain treatments within osteopathic manipulative medicine that have been shown to help people get over pneumonia[13], for example. It's not a drug. It's a manual manipulative treatment. It's not chiropractic. It's not massage. It's a specific osteopathic manual medicine technique that targets fascia and lymphatic flow. So again, and I'm going to summarize the four components one more time:

1. Step number one of my plan is addressing the virus: either trying to kill the virus or blocking its entry.
2. Step number two is inhibiting viral replication.
3. Step number three is supporting immune response. Immune response has two components: one is defense and the other is controlling inflammation. So you don't want all the inflammation to just go crazy like napalm. You need to have control over that inflammation. If the inflammation is not controlled, that's when people get into sepsis, and acute respiratory distress syndrome, ARDS, which is what kills people with pneumonia and pneumonia-like condition and influenza and et cetera. That's the whole cytokine storm. You don't want a cytokine storm. You need to have some control over this inflammatory process, and nutrients can help provide that balance.

Cavin Balaster: Right. That's the modulation of the immune response.

4. Step number four is supporting cellular machinery like mitochondrial function which I've also detailed in articles[14] and books[15], and lymphatic flow and vagal tone. I'm sure all your followers know about vagal tone.

So, you know, those are things we can do. We can do them right now. We can do them safely. We've got good evidence to support it and so those are things people could do while they are sitting around. **Learning is optional, and it's available all the time**. Right now, we have millions of people stuck in their homes, and they have no idea what to do with themselves. They are watching YouTube. They are arguing with each other and maybe they're doing some good things like exploring their childhood traumas, or fixing the garage, or whatever, or learning a new language. Probably, some people are using their time wisely. I'm not saying that everyone's wasting their time. But one of the things people could be doing during this time is **reading about *Antiviral Nutrition*. Imagine what the world would be like if people actually read about the problem that is the cause of their quarantine, while they are in quarantine, so they can help avoid the next quarantine.**

Cavin Balaster: Yes.

Dr. Alex Vasquez: Shazam! They could learn about *Antiviral Nutrition* now so that they are not going to be victims to this narrative for the rest of their lives.

Cavin Balaster: They could empower themselves. Absolutely.

Dr. Alex Vasquez: Right.

Cavin Balaster: We need to empower ourselves and what's awesome is we have this amazing resource called the internet that, that can bring us really brilliant things and I love that I found you and found your writing and clearly, you make your concepts understandable with, with enormous amount of metaphors. You're the metaphor king right now. I'm so appreciative. So, so just to recap: number one—prevent the virus from getting in the cells, and we do this by building up our barriers.

Dr. Alex Vasquez: Right.

Cavin Balaster: Our gut barrier, skin barrier, our lung barriers. There's a nutritional component to that for sure.

Dr. Alex Vasquez: Yes. Absolutely. So, you know, if you're trying to prevent this virus from getting into you, social distancing, hand-washing, that's part of it and those are reasonable parts of it. If you can disinfect

certain surfaces, that's great. And, if you can strengthen the barriers, like you were just saying, to block the entry of the virus, then obviously that is an important part of defending yourself.

Let's say you're walking down the street and somebody sneezes on you and you've got the virus in your mouth or in your nose. If you have strong barriers, and if you have certain nonspecific immune defenses on those barriers, then you're less likely to get the infection. Part of that barrier defense is called antimicrobial peptides (AMP), and your body can only make antimicrobial peptides if you have enough vitamin D. So all of these institutionalized elderly patients who are vulnerable to this infection, at least 80% of them are vitamin D deficient. ***Of course they are going to be vulnerable to this infection if they are nutritionally deficient—if they are kept in a perpetual state of deficiency-induced immune suppression***. They are all institutionalized. They live indoors where they are deprived of sunshine so that they cannot make vitamin D in their skin from sun exposure.

So anyway, virtually 100% of those people are vitamin D deficient. **If they are vitamin D deficient, they are not going to create antimicrobial peptides and that's going to make them more susceptible to this problem**. Well we can either let that go as it is, or we can fix it.

Cavin Balaster: Right. We can supplement with vitamin D or we can go outside or both.

Dr. Alex Vasquez: Right.

Cavin Balaster: The immune system regulating, having it turn on [defense] and having it mitigate itself [tolerance]. Building up our cellular and systemic health, our mitochondria—things of that sort. And this all points back to nutrition and we're talking about vitamin A—how that strengthens our immune system and it regulates our immune system. Vitamin D, same thing. Oh, and also licorice, zinc and selenium are three more things as well. Am I missing anything?

Dr. Alex Vasquez: All of those are good and we can do other things in addition to those. Sometimes drugs—some drugs have been shown to be effective, like against Ebola for example. We have many other nutrients and botanical medicines that we can use in various situations, such as elderberry and lemon balm. However, we have to talk about risk, too. We can't just be pollyannic about this. We can't just say, "Nutrition is going to save the day" even though it probably could if it were used strategically. So, let me just very briefly talk about risk involved with some of these nutritional treatments. The two that we really have to talk about to have a responsible conversation are vitamin A and licorice.

Vitamin A is one of the only nutrients that really has a risk associated with consuming it at the therapeutic dose. The risk of vitamin A is that it can be toxic to the liver and have some other consequences as well. So you have to be careful with vitamin A toxicity. You have to know how to dose it correctly. You have to know what to look out for in terms of toxicity. As a general rule, people should not supplement with vitamin A at high doses for more than a week. So for example, when I was treating patients on a more regular basis, I learned through experience that I had to tell people, "You're sick *now*, you're doing this nutritional program *now*, but you're not going to do this program *forever*" even though in some cases they might use a similar plan for longer duration. **If people are going to use high dose vitamin A, they need to limit that to five or seven days, maybe 10 days. The toxicity of vitamin A looks like bone pain, head pain or headache, dry skin, chapped lips, and then some other abnormalities on laboratory tests that are indicators of liver toxicity.** People have to be aware of the potential toxicity of vitamin A; some people get toxic with vitamin A starting at 25,000 international units, and that's a pretty low dose. So again, people have to be aware of that.

With licorice, a glass or a cup of licorice tea is a therapeutic dose of licorice. This is licorice tea [showing glass of tea] that I am drinking right now. This is licorice root steeped with hot water for 10 minutes, and then it creates this yellow, amber-colored beverage. This is what licorice tea looks like [see video]. **A cup of licorice tea is a therapeutic dose of glycyrrhizin which is about 32 milligrams of glycyrrhizin, and for some people that can also be a toxic dose if they were to consume that for more than two weeks.** The consequence of licorice, which sometimes is a benefit, is that it causes **potassium depletion** and it can cause **increased blood pressure**. So again, you and I can talk about licorice; we can talk about licorice inhibiting viruses and blocking SARS replication and blocking herpes viruses, etc. All that's true, but that

doesn't mean we can live off of licorice without appreciating the possible adverse effects. **Licorice, if consumed in excess, can cause potassium depletion and it can cause hypertension**. That's true of the root which I use to make a tea, but it's also true of licorice candy. Some people can get toxic from licorice by consuming licorice candy as well.

Everyone knows the cliché of "everything in moderation", and sometimes people get hurt by these things, and sometimes people get lucky. I went through a period of my life about 23 years ago when I was drinking licorice tea every day because I had adrenal failure, which was traditionally treated by licorice before drugs were developed for its treatment. I was drinking licorice tea every day, and I didn't have any problems with it, but I could have had problems with it because I was drinking a lot of very strong licorice tea. I got lucky, and some people don't get lucky. Licorice toxicity from tea can occur within 1-2 weeks of drinking licorice beverages, depending on the strength of the concentration.

Cavin Balaster: Zinc and copper. What about copper?

Dr. Alex Vasquez: Yes, this is important, and I have discussed this in the recent 1-hour video available online https://www.inflammationmastery.com/antiviral2020 and excerpted at https://www.youtube.com/watch?v=R2jxtxTs9lA and https://vimeo.com/396264153.

When people consume high-dose zinc in the form of nutritional supplements (unless they are eating raw oysters every day), when we approach a dose of 30-50 mg per day, especially for longer durations, we start to be concerned about zinc causing impaired absorption of copper. So, for people consuming zinc in that range, they should probably should take some extra copper, between two to four milligrams.

If a person is zinc deficient and they are immune suppressed because of the zinc deficiency, in the process of giving them extra zinc, we could end up blocking the absorption of copper. The first consequence of copper deficiency is immune suppression. I call this the "zinc paradox"—the paradox is if we give someone zinc to support their immune function, if we give them too much without balancing that zinc with copper, then we actually cause immunosuppression via copper deficiency.

Cavin Balaster: Gotcha. Gotcha. All right, so we have some tools too to empower ourselves with—Nutrition. I'm really looking forward to diving into your book and I will be posting that down below. What else are you working on these days?

Dr. Alex Vasquez: Well, right now, only this, and you could share these videos with your people as well. I actually was thinking about updating the *Antiviral Nutrition* book last year and I had created two videos last year, both of which are available online InflammationMastery.com/antiviral for free. One was a review of the entire protocol (one-hour video) and the other was focused exclusively on N-Acetyl-cysteine, NAC or acetylcysteine (two-hour video). So those are on my website site. My website, by the way, is InflammationMastery.com/antiviral where people can find that information. People can watch these videos for free. I think they can actually download the videos for free as well. I mean, I don't really care. I just want people to get the information. So those are ways, as you had just said, that people can empower themselves.

But again, empowerment doesn't mean being all-powerful. Empowerment just means you've got some tools in your bag and you have some things you can do. That doesn't mean it's going to work every time for every person in every situation. But generally speaking, we have good science, we have documentation of effectiveness, and we have the experience of use and safety. So, we don't simply have "things we can do"; I mean, we could do *anything*. We could dance in circles and try to solve our problems. But in this situation, **we have *effective* things we can do**. We have things that are proven to work. And just like with drugs, we use them and we hope it works and if it doesn't work, sometimes we raise the dose or lower the dose or we add something else. But these are things we can legitimately use for ourselves and offer to our patients and clients.

Cavin Balaster: Perfect. Yes. I want to say again how grateful I am to have this conversation with you and for all the work you've done. It has been extremely helpful for me in my recovery and continues to be. I love that your presentations are so concise and that every presentation you put out, the viewer can walk away with tools and actions that they can use right away. I am super-appreciative of

your work, how you really evolve medicine in so many ways and evolve the practices of so many others. Your reach is exponential and it's just, it is such pleasure to have you.

Dr. Alex Vasquez: Thanks. Thanks for the invitation. On a personal level, I'm glad you and I finally got to talk. It's been a while. Obviously, I saw you in 2013 and then I saw you again last year at the conference in Houston (Texas, United States). Even in those situations, we didn't have a lot of time.

Cavin Balaster: Real quick, let me tell the story of 2013. In doing some research, I saw that changing my nutrition helped improve my condition. So I was like—wow—what's this functional medicine stuff about? And I was Googling functional medicine all over the place and your name kept coming up. And I started reading your stuff and you had videos online as well that I think you were an Adjunct Professor at Bastyr University at the time. And you were making videos—video lectures available to your students. And I was able to watch these college-level lectures from this brilliant man right here and learn from them and then use what I learned, start implementing what I learned in order to restore my health. And I reached out to you, I think Facebook actually suggested you as a friend. I sent you a message and I just was thanking you for the online resources. Told you a bit about my story, and you invited me to the International Conference on Human Nutrition and Functional Medicine in 2013, which you directed.

Dr. Alex Vasquez: Right.

Cavin Balaster: And while I was at that conference on the brain day, you had a whole day dedicated to the brain. I remember when you sent me that message. I was recovering at my mother's home and I was like, "Mom, we have to go to this!" And she got me there and I'm super appreciative of that as well.

Dr. Alex Vasquez: Yeah, it was a good experience. We had you up on stage too, as I'm sure you remember.

Cavin Balaster: Yeah. And that's, that's really, that's where things began to solidify for me. We went out for a cup of coffee and you asked me, "What was the most important therapy you did after your brain injury?" and I said, "Honestly, Alex, healing my gut."

Dr. Alex Vasquez: Well that's a good example of what I had said before, and that is: **the medical model believes serious problems require serious interventions and they are always going to sideline nutrition because they are going to assume that it doesn't matter.** But look, in your case, you had a serious problem that didn't require a serious big-league intervention. Change your diet; improve your gut microbiome. But you know, back 20 years ago nobody was talking about that stuff. Even your situation is an example of a serious problem, that serious interventions at the time of the trauma, but later what you needed were things that weren't quite so serious. Life doesn't have to be so dramatic all the time.

Dr. Alex Vasquez: The **medical profession** is the biggest drama queen in the world in terms of playing this role of **victim** and **savior** and **persecutor** at the same time. In psychology, this is called the Karpman drama triangle. The three components of that are 1) victim, 2) hero, and 3) persecutor or the person who's doing the damage. And the medical profession plays all of those roles.

1. **First, they are the victim**. "Look, we've got this infection. We don't know what to do. We're helpless here." Medical schools and drug companies are always asking for funding and donations. Drug companies turn public funding and subsidies into patented products that they sell for maximal private profit.
2. **Second, they are the persecutor**. "We're going to have to quarantine everybody and force mandatory vaccinations." Whether the vaccines work or not is irrelevant. Everybody has to get vaccines. Regardless of risk of injury and death. Regardless of the fact that the same money and effort could be put into other interventions that are safer, faster, and provide collateral benefits. A couple of years ago they were trying to put statin drugs in the drinking water. That's also part of being the persecutor that's being overly aggressive.
3. **Third, they want to be the hero**. They want to say, "We've got the solution. We've got the new this, or we've got the new drug." Again, it's called the Karpman drama triangle, and it is the situation where people vacillate and oscillate from one location to the next; the medical profession does this all the time. That's why people get confused and they have a hard time figuring it out. Because it's all ***shape-shifting***, and that's what makes it hard to figure out.

Cavin Balaster: Makes for good TV drama.

Dr. Alex Vasquez: Yes, of course. Well, why do you have so many television shows that are medically oriented? Obviously, **television channels and television stations promote drugs because they promote these multimillion-dollar drug advertisements**. But here's the thing: audiences are not neutral. **Audiences have to be cultivated; they have to be groomed and shaped**. So how do you cultivate an audience to be receptive to the drug advertisement? You have to have a television show that sets the stage for the drug that's going to be advertised. That's why you see so many television programs where the doctors are the heroes.

You don't see programs where the nutritionist is the hero or the massage therapist saves the day. "Man, I had a headache. I thought I was dying and then I got a good massage." You don't see that. Right? You see drugs, you see the medical doctors and they are rushing in with the staff and the nurses and they all have stethoscopes on their necks to make them look like they know what they are doing. I mean, come on. It's a setup. They are trying to condition and cultivate and manicure or groom the audience so that they'll be receptive to the drug message. So this is a system-wide thing and we're all exposed to it from the times when we are kids.

I remember getting vaccines when I was a kid. I remember going to the doctor's office and waiting there. I remember being told I was going to be a big boy and I had to be a good boy. And I sat on the table with the crinkly tissue paper and all that. I remember all that. That's part of growing up in a lot of cultures is you have to receive these official rites of passage, and vaccination for kids is a rite of passage. That's part of growing up in the dominant culture.

Cavin Balaster: So I wanted to touch on this. I was recently informed that Denmark passed a law that allows their government to inject everybody with the COVID vaccine. I'm not sure whether it's available or whatever, but it's mandatory—they are able to forcibly inject everybody.

Dr. Alex Vasquez: Yeah. Well, there you go. Some people could reasonably argue that mandatory vaccinations is the entire point of this exercise, as a form of disaster capitalism.[16]

Cavin Balaster: I was thinking about the politics of a pandemic, how this sets the stage to where everybody is in a place where they are like, yeah, make vaccines mandatory. Because they are in their limbic brain and I see that potential on the horizon as well.

Dr. Alex Vasquez: Yeah. Some people would argue that mandatory vaccination of the population is the entire theme of this event, the endgame. And we could have this conversation on any related topic whether it is the automobile-gasoline industries or the drug industry. What we're talking about here is being **cultured** or **groomed** or **shaped** in a certain way to be dependent on whatever the dominant power structure is. We are all set up for that. We were all set up for that since we were kids. We are conditioned to be dependent and insecure from young age *and to maintain that dependency and insecurity into our adulthoods*.

Cavin Balaster: I understood you and I totally agree. That's how we're often conditioned and this is again where the empowerment comes from. And thank you for the tools for empowerment. We have the abilities; let's empower ourselves.

Dr. Alex Vasquez: Yes. We have to overcome that social conditioning to be able to empower ourselves. We have lots of different ways to do so, and one of them is reading and learning and especially learning about our own psyches but also learning about specific topics. **No one can be empowered and ignorant at the same time**. People can be egotistic and they can be arrogant, and they can be confident. But that is a false confidence. True **confidence** in many ways comes from **competence** and ***competence requires discipline and knowledge***. People don't become knowledgeable by sitting around doing nothing. It takes effort at least, to at least watch videos that are educational and maybe even read a book that's complicated every once in a while.

Cavin Balaster: Start reading peer-reviewed research or read Dr. Vasquez' book. $3. Get that for these times.

Dr. Alex Vasquez: Yes—The ebook is 69 pages specific to antiviral nutrition, plus I added other information because it's a PDF document. So I could add other documents on top of the original for more information and videos and hyperlinks and downloads and things like that. The total right now comes to 136 pages, with access to 15 hours of video, plus a long list of downloadable videos and other articles included: https://inflammationmastery-com-ichnfm-org.dpdcart.com/product/192836

Cavin Balaster: And it has links to a bunch of videos and all of that.

Dr. Alex Vasquez: Yeah. So-

Cavin Balaster: Well good. Thank you so much. Thank you for your work and we'll get through this pandemic like the others in the past and hopefully can move through this one as well. What's interesting about this one is we have the internet and such a heightened awareness right now.

Dr. Alex Vasquez: I think you said Denmark was mandating the vaccine or something like that. The two components to that one are 1)—do we really want to give the government the right to enforce medicalization of healthy people? I think that's a question. I'm not going to pick a side on this. I'm just going to say that's a big deal, for any government to assume that power, and for people to give up their human rights to sovereignty and bodily autonomy.

But the other thing is the vaccine itself. Is the vaccine safe and effective? That's going to be pretty hard to prove because they are already skipping the animal studies. They've gone right from development to clinical trials. They skipped, according to some news, they skipped the animal trials. You know they are going to skip the little bit of safety that they do for these things, and this concern was just published in one of the *Nature* journals, I believe. Everyone's aware of the huge potential for this vaccine to get released onto the market without sufficient safety studies. And so that's a concern. If they were to make one that's proven safe and proven effective, then that is a different situation; people who want to use it should be able to use it. **Just because something is safe and effective doesn't mean it should be forced on you or me. Carrots are safe and effective. *Does that mean I have the right to force you to eat them?*—No. Exercise is safe and effective. *Does that mean I have the right to fire you from your job or expel you from school if you don't exercise?*—No, obviously not.**

Cavin Balaster: I love that.

Dr. Alex Vasquez: That was a good analogy. That could be my last analogy for the day.

Cavin Balaster: With that analogy we will call it. Thank you so much. Thank you so much, Dr. Vasquez. When you coming to the States again?

Dr. Alex Vasquez: Right now, the flights are blocked, so let's leave it at that.

Cavin Balaster: That's a good point. We'll come back to that question when the storm passes.

Dr. Alex Vasquez: Yeah. Very well. Okay. Nice chatting with you.

Cavin Balaster: It's great chatting with you, as well. And to all of you, thank you for sticking around.

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Acknowledgments: Appreciation is given to Kathy Kennerly, Lynn Lennon, and Terri Ward for proofing and editing.

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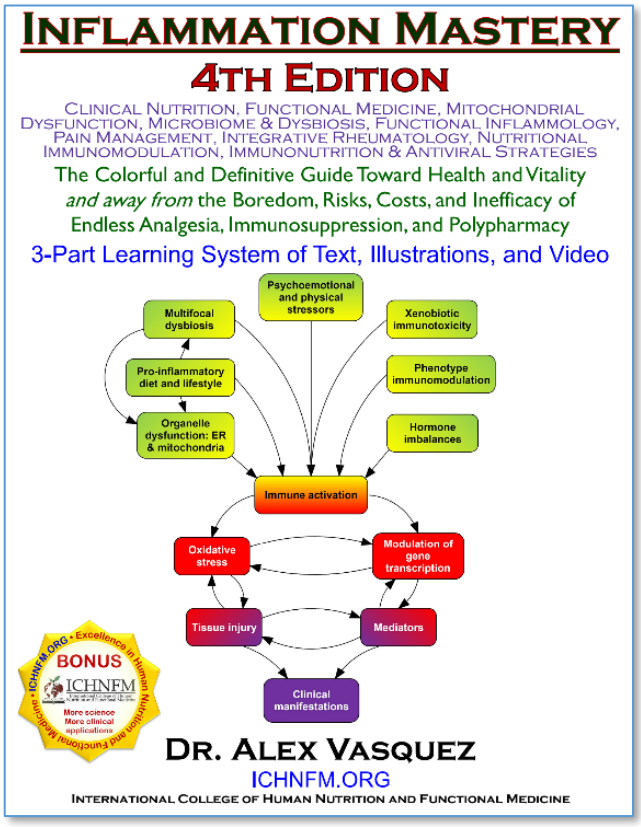
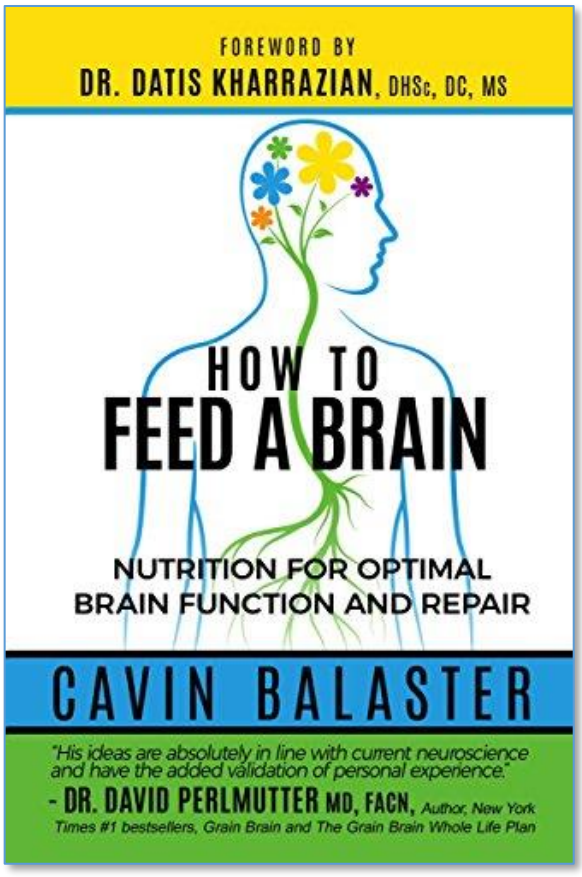
North Texas Health Science Center, Texas College of Osteopathic Medicine (Doctor of Osteopathic Medicine, 2010). Dr Vasquez has completed hundreds of hours of post-graduate and continuing education in subjects including Obstetrics, Pediatrics, Basic and Advanced Disaster Life Support, Nutrition and Functional Medicine; while in the final year of medical school, Dr Vasquez completed a Pre-Doctoral Research Fellowship in Complementary and Alternative Medicine Research hosted by the US National Institutes of Health (NIH). Dr Vasquez is the author of many textbooks, including Integrative Orthopedics (2004, 2007 2012), Functional Medicine Rheumatology (Third Edition, 2014), Musculoskeletal Pain: Expanded Clinical Strategies (commissioned and published by Institute for Functional Medicine, 2008), Chiropractic and Naturopathic Mastery of Common Clinical Disorders (2009), Integrative Medicine and Functional Medicine for Chronic Hypertension (2011), Brain Inflammation in Migraine and Fibromyalgia (2016), Mitochondrial Nutrition and Endoplasmic Reticulum Stress in Primary Care, 2nd Edition (2014), Antiviral Strategies and Immune Nutrition (2014), Mastering mTOR (2015), Autism, Dysbiosis, and the Gut-Brain Axis (2017) and the 1200-page Inflammation Mastery 4th Edition (2016) also published as a two-volume set titled Textbook of Clinical Nutrition and Functional Medicine. "DrV" has also written approximately 100 letters and articles for professional magazines and medical journals such as *TheLancet.com*, *British Medical Journal* (BMJ), *Annals of Pharmacotherapy*, *Nutritional Perspectives*, *Journal of Manipulative and Physiological Therapeutics* (JMPT), *Journal of the American Medical Association* (JAMA), *Original Internist*, *Integrative Medicine*, *Holistic Primary Care*, *Alternative Therapies in Health and Medicine*, *Journal of the American Osteopathic Association* (JAOA), *Dynamic Chiropractic*, *Journal of Clinical Endocrinology and Metabolism*, *Current Asthma and Allergy Reports*, *Complementary Therapies in Clinical Practice*, *Nature Reviews Rheumatology, Annals of the New York Academy of Sciences,* and *Arthritis & Rheumatism*, the Official Journal of the American College of Rheumatology. Dr Vasquez lectures internationally to healthcare professionals and has a consulting practice and service for doctors and patients. DrV has served as a consultant, product designer, writer and lecturer for Biotics Research Corporation since 2004. Having served on the Review Boards for *Journal of Pain Research, Autoimmune Diseases, PLOS One, Alternative Therapies in Health and Medicine, Neuropeptides*, *International Journal of Clinical Medicine, Journal of Inflammation Research, BMC Complementary and Alternative Medicine* (all PubMed/Medline indexed), *Integrated Blood Pressure Control, Journal of Biological Physics and Chemistry*, and *Journal of Naturopathic Medicine* and as the founding Editor of *Naturopathy Digest*, Dr Vasquez is currently the Editor (2013-) of *International Journal of Human Nutrition and Functional Medicine* and Editor (2018-2019) of *Journal of Orthomolecular Medicine*, published for more than 50 consecutive years by the International Society for Orthomolecular Medicine.



Cavin Balaster is a severe traumatic brain injury survivor who was given less than a 10% chance of recovery beyond a persistent vegetative state. While he beat the odds and woke from a coma, he was unable to eat, walk or talk for months and his left hand was effectively unusable. Cavin employed various methods to restore his brain and he is now fully functional. He has dedicated his life to improving neurorehabilitation, hospital nutrition, and the general practice of medicine. Cavin works privately with clients, empowering patients, practitioners, and caregivers to go beyond the standard of care and to remove dependence on medicine. He is the creator of AdventuresinBrainInjury.com, FeedaBrain.com, host of the Adventures in Brain Injury Podcast, and author of *How to Feed a Brain: Nutrition for Optimal Brain Function and Repair*.




"The purpose of life is to live it, to taste experience to the utmost, to reach out eagerly and without fear for newer and richer experience."
Eleanor Roosevelt (1884 - 1962)
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