

Individualized Support for the Immunocompromised: A Special Interview With Shiva Ayyadurai

By Dr. Joseph Mercola

Dr. Mercola (00:00:00):

Welcome everyone. This is Dr. Mercola helping you take control of your health and we continue to provide you up-to-date information in this COVID-19 pandemic, which we are experiencing, the United States. So we're recording this on April 6th and there are well over a hundred thousand, actually 300,000 confirmed cases – 325,000 in the United States, which far exceeds any other country in the world. China reporting 82,000 for the last three weeks. Can we believe those statistics? No, I don't think so. I mean that doesn't make any sense at all that they just somehow dramatically stopped having any spread of this infection. So, but be that as it may, we have over 10,000 reported deaths supposedly to COVID-19. The vast majority – not the majority, but most of them, I guess over one-third of them are in the New York City area, which is interesting.

Dr. Mercola (00:00:56):

So it's continued to increase and we're meeting today with Dr. Shiva, who has a degree from MIT, a Ph.D. from MIT, one of my favorite schools. I think it's one of the most prestigious academic institutions in the world. I believe his degree is in systems biology. So maybe we can start there and we can talk about this because you have a, a framework, a perspective that allows you to think differently than the conventional medical position, paradigm, on this and that it tends to really focus more on the foundational causes of disease rather than the pharmaceutical paradigm essentially. So, welcome. Thank you for joining us. And maybe you can elaborate on your background and, your training and your systems biology approach.

Shiva Ayyadurai (00:01:45):

Sure. Joe, you know, the MIT Department of Biological Engineering was actually a new department, relatively new that was created in 2003. And the notion was, you know, as you had chemical engineering, which was really applying engineering principles to chemistry, the notion was that you needed an engineering approach to biology as new advances or new discoveries were coming out in biology. So that created the Department of Biological Engineering. Interestingly enough, that department, you know, every department of MIT is numbered, course numbers. That was called course 20. It was formally the Department of Nutrition, Food and Nutrition Science in the 70s. But, one of the big things that took place in 2003 that really led to the formation of that department was in an ironic way, what occurred with the Human Genome Project starting in 1993 where we went into the Genome Project with a reductionist view of biology.

Shiva Ayyadurai (00:02:36):

And what do I mean by that? I mean that biologists essentially thought that the number of parts meant complexity. So we knew in 1993, you know, a worm had around 20,000 genes. So we said, okay, we're going to start mapping out the human genome. So we said, well, we were at least 25 times more complex. So the notion was we had about a half a million genes. And then as you see the numbers, they're searching for all these genes. By 2003, they only find 20,000 protein-coding genes. So that

flipped biology on its head because it said, “Wait a minute, if we have the same number of parts,” which they thought genes were really the, you know, they're a reflection of complexity, “then what's going on?” So that led to systems biology starting around 2003, which said, “Look, genes create proteins and these proteins interact.” So it's all these interactions we really need to start understanding — you know, all the way from the molecular level at the cellular level going to tissues to organs — to build a whole framework for understanding the whole physio.

So that was really the birth of systems biology, but ironically came out of a reductionist viewpoint that genes, you know, were only our genes. And that today has led to this field called epigenetics, which we know that the external environment, what we interact with can actually turn on and turn off genes. So I came back to MIT in 2003. My background, as you mentioned is an engineering. I did four degrees at MIT in electrical engineering, mechanical engineering. My master's was in design, but I was always fascinated with medicine. And, in fact I was, you know, I always would apply for medical school and always had this sort of “one step in, one step out” because there was some aspect of medicine, the reductionist approach and, seeing the body as parts that never made sense.

Shiva Ayyadurai (00:04:18):

The good news was, in 2003 when I came back, the project that I took on for my Ph.D. came out of a Grand Challenge at the National Science Foundation put out, which was, “Could you mathematically model the whole human cell?” It's quite an intractable problem. And so that's what I took on. And that resulted in a creation of a platform that we call CytoSolve, C-Y-T-O for cell and solve. And it was essentially saying, Joe, took a very different approach than a biology approach or a computer science approach or a chemistry approach. It said, “Look, biologists are essentially distributed knowledge engineers. And the thing they're trying to understand is this thing called the body. No different than aeronautical engineers trying to build the airplane.” The difference is when we build an airplane, we actually know what we want to build and we know the parts. In biology, we're finding the parts and the biologists, that's what they're doing.

Shiva Ayyadurai (00:05:09):

You know, biologists can win a Nobel prize just for looking at how two proteins interact. So they're very focused on understanding these parts. So imagine if we could create a technology where we could take those parts, integrate them and then essentially let them be sort of focused in their silos. But there would be this framework that you could integrate these molecular pathways. And that really created CytoSolve. And to me it was a big circling back because, as you know, I've spoken to you before, I grew up in India in a very different world as a kid where my grandmother practiced traditional systems of medicine. And in that system of medicine, you know, they would, they had diagnosis methods, they looked at you, they figured out your body type and they would figure out the right types of foods and medicines, herbs or even body work to figure how to get you back into balance.

Shiva Ayyadurai (00:05:56):

And that was always seen as a “black art” from Western medicine. And here, this approach lets us actually decipher what they were doing and actually understand these synergies. So that's what systems biology is about. It's taking an engineering systems approach to the body, which unfortunately the medical doctor who graduates from medical school, they're essentially very siloed. They don't sort of learn an integrative approach. I mean an engineering systems approach.

Dr. Mercola (00:06:24):

Yeah. And it's even worse than that. And it was, it's engineered that way because more than a century ago they had the Carnegie Foundation, which intervened and I forget, the Flexner Report was created, which essentially integrated the Rockefeller Foundation and the oil interest, which pharmaceutical, which were for the most part heavily connected pharmaceutical industry because they provided the raw material to make most of the most of the drugs. And they shifted things away from homeopathy and natural healing therapies. And really it wasn't taught. I mean, I went to medical school and those topics are not part of the discussion. It's pretty much a drug-based model on how to solve the human dilemma and then your clinical training, it's literally, you know, understand how to diagnose and assess and identify what the problem is and then how to administer a prescription within a few minutes. I mean, that's pretty much the summary of the training.

Shiva Ayyadurai (00:07:18):

I mean the model is in many ways an if-then-else model, right? I mean, in the '80s at MIT, there was a lot of people trying to build and this guy, Weitzman, Joseph Weissman where you had a computer where you could talk to it and it would ask you certain questions and it'll go if-then-else would go into the, essentially the PDR (Physician's Desk Reference) and figure out what's right for you.

But essentially it's "an AI type" model. You could argue that MDs are already AI. It's just they're in a, a carbon-based being. But the, like you say, the medical education is essentially Big Pharma-based medical education. It's not intended to enable the physician to really see the body as an interconnected system of parts. The ankle bone's connected to the foot bone. And I think that reductionism is what we have today. And going back, I think when you look at the history of medicine, it's always also try to reduce everything. By and large, you know, whenever a, even a noninfectious disease was there to always try to reduce it to an infectious disease, correlate this microbe or this particular virus with this particular disease. And that has really not changed that much because it essentially is a way of reducing medicine to, "if this, you know, this is a particular, microbe or solution" and you can look at that whole history from scurvy to pellagra to beriberi. You know, every major disease it's almost everything is a nail and you only have one solution, which is a hammer.

Dr. Mercola (00:08:45):

Typically, the pharmaceutical surgical paradigm. But yeah, with that perspective, I'd like to jump into the COVID-19 pandemic that we're all going through now. It really captured everyone's attention and rightfully so, because the vast majority of people watching this are probably sheltered in their home and really, admonished to not go outside their home and really, challenged with that. They're not working, which is going to lead to essentially an economic catastrophe. We are absolutely on course to break all the unemployment records that were created during the Great Depression of the 1920s, '30s. So we're on a course to break that and the economic catastrophe that results from that will, in my view, invariably, unquestionably result in at least an order of magnitude more deaths than we have now from this infection. So why don't you give us your take on this, as we look at it on April 6th.

Shiva Ayyadurai (00:09:45):

Yeah. It's, it's an interesting thing. You know, we're looking at — What's fascinating is you're looking at immune health and economic health. So we're seeing the integration of medical policy and economic policy. Interesting enough, you know, I, you know, I had a very interesting discussion with a very leading economist and he had a serious concern about the fact that economists are being forced to backfill in a, a misguided health policy, which is occurring. And we can talk about that with economic policy. What he

meant by that is just basically use quantitative easing, which is basically print money and that will solve the problem. Now that entire process like, like you just referred to, does two things. First of all, we have I think 10 million people in unemployment claims just in March alone. So you have unemployment. In addition to that, you have the fact that we're going to print money, which will, and most of that, if you look since 2008-2009 when quantitative easing took place starting, that what, what that's actually done is it essentially moved, it's been the biggest transfer of wealth to the 0.001% again.

And it is essentially a weekend essentially earning power and the meaning of the dollar. So that's what's occurred. So now we have this COVID-19 and we have, we see this overreaction in my opinion, economically from the fear-mongering. And it's in many ways, it reflects if we study the immune system that if you actually analyze it, that the immune system fundamentally wants to operate well for you in homeostasis and it's the overreaction of a weakened and dysfunctional immune system, which actually causes harm. And then similarly, when you look at it from an economic standpoint, we have this unbridled overreaction in my view to not looking at even what modern medicine is saying that we should take a personalized medicine approach, right? One size doesn't fit all. This is basically "flatten the curve," right? Essentially kick the can down the street and we're just going to wait until when? Until a vaccine is produced or until a drug comes out?

Shiva Ayyadurai (00:11:55):

And the idea is the assumption that, the immune system of all of us is equally weak, right? That's what this is based on. The assumption is that all of us are going to get it and all of us will suffer from it. So it's a very interesting model. So when you look at someone like, you know, the person leading this health policy, it guy like Dr. Fauci. If I could speak to that, his background is from the pharmaceutical world. He's been there for around 40 years from the time of Reagan to the, I mean, he's been there, across multiple presidents over four decades. And as a part of that, you know, when you look at the NIH and when you look at the CDC and the WHO, these organizations are heavily, heavily influenced by pharmaceutical companies.

Shiva Ayyadurai (00:12:45):

If you look at the CDC, it's really literally a rotating door between pharma and CDC, pharma and CDC. So in that environment, the model has always been never to discuss immune health, what we can do to support the immune system. It's always under the assumption that there's this big boogeyman, you know, and that the virus harms your body. You know, it is a thing. Most medical doctors, again, they're victims of this education. Many of them, if you ask, they're taught almost that the, the virus literally comes and attacks your body and a vaccine or a pharmaceutical intervention blocks it. It's not taught broadly to people that it's the dysfunctional, weakened immune system where you have, it's not running on all cylinders. One part of it can overreact and that overreaction is what goes in and attacks your own tissues. So the issue is we're not having a discussion at all in any of the broad media about how do you modulate that overreaction and support people's immune health.

Shiva Ayyadurai (00:13:45):

And so it's a very fascinating thing and we're, we're seeing the lack of discussion of this overreaction of a weakened immune system. And over here we have an overreaction on the economic side.

Dr. Mercola (00:13:57):

And yeah, two responses to that. Then we'll discuss what strategies you can implement to improve your immune system. Because there was a lot of controversy in some Big Media outlets were saying, "No, it's

impossible to improve your immune system. You know, you just can't." That's just a bunch of fabrication. But I have a slight disagreement with the fact that this economic collapse as a result of the fear – it's not a result of the fear. It's a result of precisely engineered governmental policies that are seeking to address this. Now, superficially, it may appear or extensively may appear to be in the public's best interest.

But I'd like you to respond to this, that they know at a deep foundational level that this is not going, this is not a pandemic. The WHO declared it. I mean, they can call it technically it is because the worldwide infection, but it doesn't compare to the previous epidemics. We have the Spanish Flu in 1918, 40 to 50 million people. You have the Bubonic Plague, 1300s, that literally wiped out 60% of Europe, 60% of the population. We are looking at an incredibly tiny fraction of our population, but it does mean far less than 0.1% that is going to go on to be impaired. Now, tragically, you know, it's sad that people are dying, but there are simple strategies that don't require to collapse the entire economy and put people in isolation. And it causes massive unemployment that you referenced.

Shiva Ayyadurai (00:15:30):

I mean, I wrote a letter to the president and I said, look, one of the things that came out in 2003 when you go back to systems biology was, was a notion of "one size does not fit all." Okay? This was a fundamental thesis. Even Francis Collins at the NIH at least purportedly supported it, which is we need to move to the right medicine for the right person at the right time. So let's look at public health. And this is just a thing that's in the last 17 years. Everyone claims they want to support this, at least in Western medicine. So if you look at the public health issue right here, you basically said, "We're not going to apply that." Everyone is going to be treated the same way. So when I'm, when I meant the fear-mongering, you know, I did a tweet that said, you know, the fearmongering that is taking place is going to be, is being used to suppress dissent, to crash the economy and also to issue medical mandates.

Shiva Ayyadurai (00:16:19):

It has sort of a three-pronged effect. Now the, I think, I think we probably will agree, I think that fear-mongering was engineered. You have a broad base of the American public, which has basically been made to think that as you just said, that you know, other alternate solutions, you know, vitamins or these kinds of things, these are seen as on the fringe and that everything always must've come from Pharma medical intervention. So that fear-mongering is really the weaponry that was used to crash the economy to, you know, suppress dissent and impose, you know, what I think is going to be long-term mandates. But if you look, you know, just in the last six months, Hong Kong people are protesting out there, massive protest. In Wuhan itself, which very few people know. The New York times carried one article six months ago. There were massive anti-pollution protest by the citizens of Wuhan because China wants to build all these incinerator plants.

Shiva Ayyadurai (00:17:15):

It's not like the Chinese people also want to breathe dirty air. You know, you had massive protests in France. You have massive protests in Venezuela. If you just look broadly, there were massive uprisings, antiestablishment uprisings. Well, they're all gone now overnight, two weeks. We don't even hear anything about them. Right? But I think the fear-mongering, what is going to establish, and you layer on the economic pieces that in six months, seven months from now, let's say when the next "epidemic" comes, I think it's going to be used as a way for people to essentially accept what the state wants or what a few set of people deem that is good for everyone. And that's, I think the milieu that's being set

up. That's being teed up. Oh my God. You know what I mean? By the way, H1N1, right? Even the last flu season, 60 million people, we don't even have to go to the bubonic plague, right?

Shiva Ayyadurai (00:18:01):

I mean, just in the last year, 60,000 people died. Out of 60 million people, 17% of the U.S. population was actually infected with the flu and 6%, I mean, I'm sorry, a best 60,000 people died. That isn't even being taken into account. So this entire decision that this is a pandemic, this is such an important event that we have to shut down the economy. When things don't make sense, one of my mentors, taught me, Joe, there's another agenda. And that's what I see because it doesn't make any rational sense. And I think that's why a number of the videos, the tweets I've been doing just has been going viral because to everyday working people, it doesn't make sense. They're trying to sort this out.

Dr. Mercola (00:18:46):

And I think I've seen your other videos address the fact that there are true, let me, not pandemics, but epidemics for certain, of death and disease that are completely reversible –

And if they received enough attention and focus, we can have a significant and true improvement in public health. These would be heart disease. These would be from accidental prescription. We have a whole litany of them. So maybe you can address those because those are the true epidemics. And just one other comment that I want you to integrate in that is that the access to information has been cleverly engineered to be selectively removed because in June, literally nine, 10 months ago, Google, which 92% of the world's population uses as a search engine to find information on the internet. Because if it's on the internet, it's almost irrelevant. You have to identify and find it. They removed hundreds and hundreds of natural health sites that we don't exist anymore. I'm one of them. And so when people seek to identify national strategies and they go online to find it, they're not going to find it. They essentially removed it. You know, you would've had to been in the know before the epidemic to identify these sites because you're not going to find it otherwise.

Shiva Ayyadurai (00:20:03):

What's interesting. You say that Joe, I was just, I was just kicked off Twitter just moments before this interview, because I put out a tweet. This was almost, two weeks ago. It said, "It is beyond criminal for the medical establishment is not," and I put "mandating vitamin D." It was a joke and, and not a joke, but I was being a –

Dr. Mercola (00:20:28):

That's clever. Funny. And that there's, to use that as basis for banning you is reprehensive.

Shiva Ayyadurai (00:20:31):

I said "a proven solution for, because there's been nine different systematic reviews." Maybe they didn't like the word "proven," [inaudible 20:40] especially for our seniors, immunocompromised and frontline workers. So why would –

Dr. Mercola (00:20:45):

And you aren't selling it. I would go to jail.

Shiva Ayyadurai (00:20:49):

So I'm not selling it. Basically, there's a 2017 systematic review came out clearly showing, you know, looking at 11,000 participants. So the issue is, it's not even about science anymore. So it's essentially moved to a model of a finite set of people, serving the interests of another finite set of people. And if they don't, they'll probably be out of the club. That's what's fundamentally going on. But if you go back to what you were just saying, when we really look back at history, when we look at even "infectious diseases," what actually caused the real decline in infectious disease as well? If you look in this country, you know, a century ago or 1900s I think there's about 40 out of 100,000 people are dying of infectious diseases before even the advent of vaccines, right?

Shiva Ayyadurai (00:21:37):

That went down about a half, about a hundred thousand. Massive decline. Well, where did that come from? Well, that came from sanitation, vitamin A, nutrition, elimination of child labor, refrigeration, I mean infrastructure at the political level as well as you know, at the actual brick and mortar. Well, how did we get that? And this is one layer people need to understand from a human standpoint. Well, it came because in the late 1800s there was a massive force of the American working class who were militant and they fought for those rights. People lived in squalor. People, you know, no one cared for them. And it was the, the uprising of those people and very, very powerful ways independently self-organizing systems, you know, all over this country that forced the elites in this country to give them these basic infrastructure because they thought they were going to lose it in the 1930s, you know, Franklin Delano Roosevelt was not really a nice guy.

Shiva Ayyadurai (00:22:35):

If you really look at it, he did this because of the ferocity of the rising American working class demanding this. So what you see is during that period you see that infrastructure was given. We have, you know, the games that we got long before vaccines came and what's fascinating is in many ways a plumber and the, you know, and the sanitation worker did far more than even the, you know, the pharmacist or the medical, you know, the medical professional, which came much later. But in my view, Joe, what occurred from that period was those elites in this country were so upset that they had to give some something for the working people. They went on an attack on them. So you had the McCarthy era. Okay. It's a very interesting period. So you basically deemed all of these people "communists," right?

Shiva Ayyadurai (00:23:21):

It wasn't. The fact is the May Day we could celebrate it all over the world began in America in the late 1800s three American workers were shot fighting for basic rights and the working class throughout the world deem that May Day. Now we've erased that from American history. We, we think it's all capital C communism. So what I see is the ability for people to organize and demand their rights and get them is what did occur in the late 1900s and we got massive gains. Now look at infrastructure today. Dirty water, dirty air, dirty food, things like the Paris Accords actually allowed China to pollute another 11 billion more carbon metric tons. You have the Monsantos of the world, the amount of, you know, small particulates, you know, and we'd look at them in synergy, how they affect our body. None of that's discussed, none of that.

Shiva Ayyadurai (00:24:08):

I think the United States got a deep plus in infrastructure. The roads, the bridges and the water systems. And when you don't fix these things in time, they affect all types of environmental things. So the elite in

this country do not want to address that. They want to always create a fake problem and a fake solution and to consolidate power. And that's why when you look at this phenomenon that's taking place, it's a penultimate of it taking place, right? You create massive amounts of fear. So people essentially will then be willing because they're under economic stress under what they think is a health stress to give up their rights. And that's where I see this headed. So this is an interesting convergence of health policy. You know, the economic attack or attack on people's health, people's autonomy and freedom. The truth, freedom and health are all under attack.

Shiva Ayyadurai (00:25:01):

And I think, you know, when you look at the aspect, you just talked about the surveillance state, right? You have Google, which claims that they are liberals, right? They want to help the world, et cetera. Well, do they? They, they basically do not want any discussion about indigenous people's medicines, right? That have worked for centuries. They don't want to talk about simple solutions because if you follow the chain of their little cabal, it's a very incestuous group of people. So you suppress discourse, you suppress debate, you suppress freedom and you move everything away from, the scientific method, which is a process where you actually have to prove stuff, which is what they claim they want to do, to scientific consensus. The freedom gets suppressed and now you can move truth, to scientific consensus. And once you, so you go from suppression of freedom to a, frankly fake science or outdated science at worse, at best.

Shiva Ayyadurai (00:25:56):

And then that is used to create a fake problem and a fake solution. And then if you go to the health part, what that means is you diminish people's health, you control people's health, and now you have a populace which is so controlled, they don't have the strength to even fight for their freedom. So you have the attack on freedom, the attack on truth and the attack on health. And all of those are interconnected. They too are a system from a systems perspective. Without freedom, you can't have truth, without truth you can't have health, and without health we don't have the strength to fight for our freedom. And the academic, you know, the academic establishment, the entire way that truth actually is discovered should be through the scientific method. That's what's really been compromised starting, I would say probably late '50s and we may want to, you know, discuss that.

Shiva Ayyadurai (00:26:43):

I think the viewers here really need to understand that. You know, I was taught always to respect teachers for now growing up, right? And we had to, I think in the '70s there was still the period of time where we have a lot of dedicated public school teachers, but what has occurred and the inflection point in my view took place in 1970 with the passing of the Mansfield Amendment. There was a point where even though a little piece of a lot of money came from the military budget, interesting enough we was, they just threw it to pure basic research in an ironic way. So there were people at Bell Labs, people at interesting institutions just doing really cool stuff. And even before that it was hobbyists. It was never driven by, Hey, I want to start a company. I have to make \$1 billion. It was people essentially motivated by curiosity at the edges who are doing amazing innovations and work.

Shiva Ayyadurai (00:27:36):

After that, after World War II, after you had the Manhattan Project, after then Sputnik took place that was used, that fear in some ways was used to essentially create these mass consolidated institutions of science. And in 1961 John Kennedy gave a very famous speech to the National Academy of Sciences and

he basically said, “look, the problems of the world are becoming large-scale systems problems.” Essentially what he was saying, and “We rely on you, to the scientists to help us uncover the truth in these.” And he goes, “This is a conundrum of democracy because you guys are a small elite group and we're, we're outsourcing, you know, our decision making to you under the hope that you're disinterested, objective third parties.” And that was this very interesting point he made and I think Kennedy was very observant about this, that this has had become a conundrum of democracy.

Dr. Mercola (00:28:26):

Let me just — Excuse the interruption. But Kennedy's comment was based after Eisenhower's comment a few years previously where he said that he warned us when he was, I believe just getting ready to leave the presidency —

Shiva Ayyadurai (00:28:40):

'61. '61 or —

Dr. Mercola (00:28:45):

Yeah, so it was within the same year, right. Dangers of the military-industrial complex. So you can tie those two together.

Shiva Ayyadurai (00:28:48):

Yes. So Eisenhower talked about — he basically was saying that there was a moment in history where all these innovations came from everyday Americans bottoms up and now that was being consolidated and what would that mean for this country? And that's, we are basically witnessing the entire, that trajectory that Eisenhower and Kennedy predicted, particularly Eisenhower predicted. By the way, there was another great senator, William Fulbright, he's the one who coined the term military-industrial-academic complex. And Eisenhower, in that original speech, I believe he had military-industrial-academic complex. But I believe Jay Stratton, who was his adviser from MIT, had removed the word academic.

Shiva Ayyadurai (00:29:26):

So it became a military industrial complex. But Fulbright brought out those, you know, that essentially what they, some people call the quote, unquote golden triangle where all great innovations and solutions come out of. And to me, Joe, this is personal because, you know, I grew up in Newark, New Jersey. I was working as a full-time research fellow at the age of 14 cause I was one of those kids, was very motivated doing medical research while finishing up high school. I had gone to NYU and a computer science program the summer before and I was literally looking at baby sleep patterns using computing. This is in -78 when a computer would occupy a huge room. Now, while I was there in a small medical college, I was given this great challenge to convert the old-fashioned — remember the old-fashioned interoffice mail system, inbox outbox folders?

Shiva Ayyadurai (00:30:13):

This was the interoffice mail system. It was the foundation how communication took place. It wasn't just simply text messages, but I was asked to convert that entire system, blind carbon copy, carbon copy, registered mail, the address book, into the electronic form. And I called that I wrote 50,000 lines of code

named that system email and got the first copyright, Joe, long before I came to MIT. Now the reason I share that was I never spoke about it, you know, like called the email, wrote the code, had the copyright well, went through the MIT journey, which is, MIT is the military-industrial-academic complex. Right?

Dr. Mercola (00:30:51):

Wait, wait, wait. That, that's a profound statement. And since from someone who has so many degrees from MIT, could you expand on that? Because that's news to me. I didn't realize that.

Shiva Ayyadurai (00:31:01):

Yeah. What the invention of email?

Dr. Mercola (00:31:02):

No, no, no, no. Which, you know, we, we, that's interesting.

Shiva Ayyadurai (00:31:08):

Going into MIT?

Dr. Mercola (00:31:11):

MIT was the military industrial complex.

Shiva Ayyadurai (00:31:12):

It is. It is. Look, so MIT, if you look at it fundamentally in the 1940s, the transition took place, when, Vannevar Bush, the president of MIT, left to form a company called Raytheon. There's a great book I have written by David Noble. David Noble, a great, great social historian. Noble wrote this book called "Forces of Production." He was a professor, a history of science professor at MIT. And he said that moment, when Vannevar Bush left to form Raytheon, he said, that's when we actually lost true education because the public universities essentially became funnels for starting large-scale military endeavors, you know, using private, you know, where money was moved from public to military endeavors. So MIT at that point really started transitioning to becoming part of the military industrial complex.

Shiva Ayyadurai (00:32:06):

So if you think about a guy like me when I came there, you know, it's a liberal university, I was, I did many things there that I was on the front page for inventing many other things. Tool call, echo mail when I won my Fulbright. But in 2011 when all my stuff went into the Smithsonian, documenting the fact that I invented the first email system, the backlash was profound, Joe. And this is not about even the invention of email discussion. It is why was it so profound? Because it wasn't done in the bastions of Silicon Valley, you know, MIT, et cetera. It was done before. You see, it doesn't compute that great innovations could come from outside this military-industrial-academic complex, that all great innovations must come from that complex. And this relates to this essential hegemony of who creates what is a solution, who's an innovator, et cetera.

Shiva Ayyadurai (00:32:56):

By the way, the first TV was invented, invented by a 14-year-old kid in Franklin, Idaho. Outside of that, and there has been this larger brainwashing that has occurred to the American public that all great innovations must come from war. Okay? So if you look at it that, you know, we should be so thankful we go kill some people over there because we'll get some innovation out of a Tang or wealth Velcro, right? Which by the way, didn't come out of the military complex, but we've been brainwashed to think that we have to go around like this to touch our nose, as we say in India. Right? You can't touch it like this, that we should be ready to do something abnormal and be thankful that you get these great innovations out of it. And it's basically purposefully obfuscating reality in some way to make us believe that we should not follow our own instincts and our own common sense.

Shiva Ayyadurai (00:33:52):

So historically in this country, you know, innovations came from bottoms up and then now it's been consolidated that it must come top down. So the COVID-19 issue also has this very important aspect. You have one person, Fauci, he is essentially driving the entire country's economic policy now. Under this thesis that, you know, we must flatten the curve, we must wait for this vaccine. And any discussion about any other alternative therapies is not even on that radar. Any discussion, "Hey, why don't we protect our health care workers?" who they supposedly claim they care for with certain types of vitamins A, D and other things, at least to give them some protection, layering and protection – that's not even on there. So the entire focus is fundamentally about a reductionist model of a few solutions that they control and own. And so when you go back to heart disease, I think what 640,000 people die of heart disease?

Shiva Ayyadurai (00:34:50):

Nearly 570,000 people have cancer, 440,000 minimum of medical errors, another 200,000 from prescription drugs. If you take the ladder three and four, it's more than heart disease and cancer.

Dr. Mercola (00:35:04):

Those numbers are all per year.

Shiva Ayyadurai (00:35:09):

Per year, per year. But those have never been made public health issues. We have not. We have not said, "Hey, let's shut down the economy to take, to address the fact that we have skyrocketing obesity taking place, skyrocketing diabetes." So the level of contradiction, the level of hypocrisy should wake up everyone to understand that there is always another agenda. There is another agenda, that's what's going on. Again, I repeat what my mentor said, "When things don't add up, you take a step back and say, what is the other agenda?: And the only thing in a common sense way that reveals itself to me is power, profit and control. Power, profit and control.

Shiva Ayyadurai (00:35:47):

Those are the three things that come. So we're looking at a world where a finite set of people, and by the way, these people aren't nationalists. They're not Americans, they're not Chinese, they're not Indians. It's a set of people who don't frankly care about any particular state. It is about caring about their, you know, their future. And, that's it. And we are essentially little automatons on some large network that must serve that purpose. So that is why when you look at this, it is essentially, in my view,

it's to essentially retrain us to essentially accept top-down model even in a much more profound way. And it's now this has been going on for years, right? But this is, it seems like at some point you have this interesting point where there is a real complete assault on food, freedom and health and that's what's taking place right now.

Dr. Mercola (00:36:42):

Yes, indeed. And, just to expand on that a bit, one of my favorite recent books is, "The Age of Surveillance Capitalism" by Shoshana Zuboff, who is a tenured professor at Harvard Business School and did an unbelievable work on this and documented how Google is really the leader of this. And they were really forced into it because they, early 2000s, I think they went into it for the right reasons, but they, they didn't generate revenue so they were under pressure or was it tech that bust out in the 2000 and they'd had to find some way to capitalize themselves. And they initially started doing it to sell ads and they use this technology and they had a great computer system and wonderful scientists figured out how to sell ads really well and essentially predict behavior from this excess behavioral surplus that they were capturing through their computer systems.

And they just evolved and they realized they could do this. And then they realized they've been doing this for two decades now, that they, they've acquired so much knowledge and information that they can manipulate behavior and essentially learned how to control this. And there's like no doubt in my mind that this information they've learned over the last two decades has probably been used to engineer this epidemic in some way, shape or form.

Shiva Ayyadurai (00:37:55):

Yeah. Look, in 1993, Joe, and I started my Ph.D. One of the areas I was very interested in was pattern analysis. You know, if you look at when my grandmother would observe your face, she was essentially doing an intuitive idea to place you in some multidimensional space of your particular balance. And then she would find out what was appropriate for you. So in 1993 my second interesting event with email, and it was always there, was the Clinton White House was getting tons of inbound email.

Shiva Ayyadurai (00:38:25):

Remember email was an office application, '93 became a consumer application with the web. So the White House was getting, you know, 5,000 emails a day and they were doubling. So they ran a contest to see where their AI technologies that could automatically read the email and sort it. Clinton was literally printing them out in the White House and having interns handle it. But anyway, so I ended up winning that contest, left MIT to start a company called EchoMail, E-C-H-O M-A-I-L and what I noticed was we were building a way to analyze unstructured texts to see what people are saying. What I learned was, I remember looking at Nike's email one day and you learned that you could actually cluster people reasonably well. You can do an ad and you would see how people would respond with email, and I'm not saying people are robots, but the advertising out here could control the response for email and that data could be used and say, "Okay, these people are interested in this and then you can send them out to take their sale item."

Shiva Ayyadurai (00:39:19):

Right? So we built this technology called EchoMail. But what I noticed was that the ability to observe people, which is the observation piece, collect data and then controllability. This is what control systems do when you file it in an automatic pilot and an airplane is gathering data, it has a destination it wants to go to, it's constantly gathering data, which is the observability piece. And then it does control ability to

adjust things little by little. So the issue is, "What is the goal and control systems?" You have a goal, what is the goal of these individuals? What is the end goal, right? Because, obviously the gathering of data, you know, in an airplane you want to go from Boston to San Francisco and you're trying to control your planes, obviously off course, 99% of the time. And you're making small adjustments. In advertising and marketing, you want to get return on investment on a product sale, right?

Shiva Ayyadurai (00:40:11):

So you're gathering data and you're doing targeting, okay, this person is a woman. She bought a handbag, she'll probably buy a necklace, you know, all the Amazons and all these people and they dish up stuff. But the end goal here to me appears to be the end goal is merely control for maximizing, eliminating a lot of friction to make profit. You know, at a very deep level, that's one thing. So power, profit and control is the goal. So in order to maximize that, you must have incredible amount of surveillance. You must have the ability to manipulate just like that airplane very, very quickly. It's basically converting this entire thing to one social-engineered machine. And so you can move people and labor as you need, when you need it. And that's what I think we're saying. So in China I think has one camera for every four people.

Shiva Ayyadurai (00:41:03):

And I think the United States is probably heading there pretty rapidly with 5G, et cetera. But the level of surveillance that's occurring and the level of computing power we have now to manipulate people, is what's taking place. So I think from a behavioral standpoint, this COVID-19, the quarantining, the epidemic, I agree with you. I think this was well planned and they're gathering tremendous amounts of data on how people are reacting, which groups of people are reacting certain way, where you have to watch for hotspots, tremendous amount of information that's being gathered to help in the next time that this occurs.

Dr. Mercola (00:41:41):

Yes. And more than likely, you know, the two biggest concerns that we have, well, the primary one from my viewpoint is that absolute devastation of the economy and the collapse and who knows what that may be a social disaster rise on the street. I mean that, I'm not predicting that, but it's certainly potential. But beyond that, what's clear is that we're going to have this annual epidemic of flu we've been having to for a long time. We're going to, this is a recurrent theme. Okay. It's going to happen. So there were a lot, we're likely moving towards mandatory vaccinations of an unproven, unsafe vaccine, in the not too distant future. And the other risk is a continued loss of our freedoms that had been, one, paid a very severe price by our ancestors. And we're going to lose it. We lost this big section of them, the 9/11 shortly after with the anthrax and the Patriot Act was implemented and people still, I believe, don't have a full understanding of the loss of personal freedoms as a result of the implementation of that act that can be implemented at just about any time.

Dr. Mercola (00:42:45):

I think probably portions of it work on that end of this epidemic. So, I mean the just, it is mind boggling the power and control they already have. And I, yeah, it's just, it seems like they have all the power they need, but there's still seeking to get more. So those others, those are some of the risks. You know, I don't want to put separate too much on this cause we, you know, we, this, we don't want to be, you know, focusing on the sky's falling. But we want to be somewhat hopeful and give people specifics, simple strategies they can implement to get around this. So they're, you know, you can comment on

what I just said, but then I want to move into the discussion and dialogue about some of the things that we can do and what we can focus on. Not only to keep us healthy and what we can do to treat it if we have a little viral infection, but what we can do to address this manipulation that, and that's a result of this surveillance economy that has been morphed and largely facilitated and catalyzed through Google. And now of course implemented from Facebook. And, and even Amazon, Microsoft, so, why don't we start there?

Shiva Ayyadurai (00:43:49):

So Joe, I think for, for people listening, I think it's important to understand the problem, right? And then it's important to have a framework on how we can actually tackle the problem. So one of the ways that I describe it as literally using a triangle, you have freedom, truth and health, truth, freedom and health is, I think what we all want. The opposition to that is power, profit and control. But if you look at that triangle, one is you have to understand we need to have freedom to discourse, debate, academic freedom, all of that. And from that we get truth as I mentioned. And from truth, we're able to actually understand health, not only of our body health in the broadest sense, systems health of our infrastructure, our environment, et cetera. And then we have the strength to fight for freedom now.

Shiva Ayyadurai (00:44:30):

So each one of those, there's, you know, the, you know, I've thought about this and here's a solution. For example, when you go to freedom, if you look at the communication that we're doing right now, we are heavily relying on Google, Facebook and then probably three major telco companies. So basically five CEOs control basically our communication, one phone call to them, and you can essentially shut down communication. This is not that farfetched. If we look at what happened in Egypt, remember when the massive protests were going on there? People are using social media, the movement was rising and in fact workers were starting to come out in the street and Hosni Mubarak made one call to Vodafone and he shut everything down. So what is the solution? Well, it's going to sound interestingly, initially weird, but every time I've shared this, people go, "What are you saying?" and then it makes a lot of sense.

Shiva Ayyadurai (00:45:17):

The Founding Fathers of this country created an institution called the United States Postal Service. It was a public comment. Why did they create that? Because the Crown was not allowing each individual to communicate. So the notion of the press was all of us, where the press, there was no like, you know, New York Times. Each one of us were supposed to be the press. So the Postal Service comes into being by these very enlightened founders, which was, "I could send you a letter and you could send me a letter and no one could communicate." The Postal Service also created what was called a police force. If anyone interfered with your and I communications – 20 years sentence in prison, it was criminal. Okay. So the entire postal service system, if you looked at it, it was a distributed decentralized environment enabling every American to communicate for pennies.

Shiva Ayyadurai (00:46:04):

It was quite phenomenal, right? Up until 1967 or it's at '70, nearly 60% of the mail that went through the postal service was political mail, left wing, right wing, green party. Everyone. Now in 1997 is when email volume overtook postal mail volume. I met with the executives of the Postal Service. I said, look, you guys should be actually living up to what you were, you know, chartered to do, which is to protect free communications. Why don't you offer a public email service and public social media services? I bet you

Americans would pay 50 bucks, but that would be protected by the laws of the constitution. No one including the government could interfere. They thought it was a ridiculous idea, Joe. And then they laughed at me. They said, you're a 29-year-old kid. You know, we're bigger than Walmart anyway, 2011 the Postal Service is going out of business.

Shiva Ayyadurai (00:46:56):

Why? Because all the best parts of the Postal Service were privatized into DHL and FedEx. So I again hit him really hard. The inspector general, Dave Williams, called me up. He goes, "Shiva, why are you attacking us?" I go, look, you guys are not doing your job. You're not in the postal mail business. You were supposed to be in the communications business. You are set up as a quasi-organization to protect our rights. So anyway, I did two chartered reports for them, Joe, it's still there. My point is we need a digital rights act and there is an institution that can employ that. It is a postal service in my view and, you know all these postal service locations could be converted to a mesh network. So there is an opportunity to have a network by the people for the people. Now if someone wants to go use Google and Facebook and you can, but there is, there needs to be the public comments.

Shiva Ayyadurai (00:47:46):

This is not an idea. It's not communism or socialism per se. It is more saying that there are certain things that should be the public comment system, digital rights act.

Dr. Mercola (00:47:56):

But let me stop there because that's a brilliant idea, but don't you think that the 0.001% is a very few people I've ever heard reference it that they say that 1%. It's not. It's the 0.001% of people. Don't you think those few elite, that group, would object to this and have the power and control to prevent that from being implemented?

Shiva Ayyadurai (00:48:19):

Definitely. Definitely. That's why I believe ultimately we have, we need to have a mass movement, Joe. Nothing has ever been given to us. You know, people think, you know, slavery ends one day and we have freedom the other day. Every point in human history has always been people chipping away at slavery to get freedom—

Shiva Ayyadurai (00:48:36):

I mean, look, I came, people may, you may know this, I came from an India where we were considered untouchables. India had that hierarchy, the small set of the Brahmanical priesthood, the kings, the warriors and every, everyone else was called shudras. You know, so I have seen what this does to deteriorating that human spirit, right? What it does to people. But we are heading into a neo caste system are probably already there, but the, but those, but that's something very tangible to fight for. People need something they can say, yeah, why isn't the postal service doing that? There's a report written, et cetera, and it could make them billions of dollars, by the way. This part of this is now we have the ability for people to have discourse that competition of Facebook and Google, but let's talk about truth. How is truth created? Well today since the Mansfield Amendment, since science has become consolidated, since the academic today practice is the oldest profession where real scientists are essentially, you know, the crazy people come up with different ideas, they're actually dismissed.

Shiva Ayyadurai (00:49:36):

What we've done is we go to, it's mediocrity to the mean now, right? So you have to be part of the club. You can't ruffle feathers, the entire peer review scientific process. If you look at the NIH who sits on the board, when a decision is made, who gets funded, you look at the major journal editors and you'll look at the major heads of departments. There pretty much is a big overlap. So that's why 70% of the biological scientist funding probably goes to probably 10 major institutions, right? Forget the guys in state institutions and maybe doing some really cool work like I was in Newark, right? Those guys don't get funded. It's essentially bringing everything to the mean. And if you don't support that mean you'll never get tenure. You won't get grants, you won't be funded. So the entire process, when we as Americans give \$10, \$20 billion, whatever it is to the NIH, that funding gets dispersed to an insider group.

Shiva Ayyadurai (00:50:27):

And if you and I just got our Ph.D. and we have seven years to get tenure, I better fall in line. Not only do I have to publish papers that meet the norm of that field, but I also have to get cited in order to get tenure. It's not, I publish 10 papers or a hundred papers. The experts in the field have to say, "Hey, Joe is doing great work in cancer biology. I'm citing his paper." So when your tenure review comes up, they'll say, "Oh, how many of the other leaders said, 'you know, Joe Mercola, or Shiva has done good work?'" And if you don't have those reference letters, you're never going to get tenure. So with this, it's really, really a kissing-up model, right? It's not for innovation. So here's a solution to that. We need to go to a citizens, citizens science model.

Shiva Ayyadurai (00:51:10):

All this funding we give, it's our money. So if you are a researcher or MIT, Harvard or Stanford and you're doing research, you know what? And you've got federally funded dollars, as you're doing those experiments, it should go right up to the cloud. It should because what the incentive here is you, you keep your data, it's your data, which it really isn't and you're going to publish it under your own framework when you want it. So you can do insider trading and we don't even, we don't even know where all the climate data is. We don't even know most of this data. So my view is we need to go to a model where we engage millions or billions of people to participate in science. Look, the tools have gotten easier. Everyone has an Excel spreadsheet. Everyone can get these tools. If the data's up there, we could have participatory science.

Shiva Ayyadurai (00:51:52):

What that means is when we give funding to federal at university, it's not your data. Once you get it, if you do an in vitro experiment, you kill an animal, you do some experiment, put it up, the raw data should be going up. And we as people in there, I mean there's enough tools now with meta language, how you could code that, that we could have access to it. So we need to take power away from the academics. And one way to do that is to force decentralization. That's the Postal Services, so that's a common theme here. Let's go to health and the entire health care model. So that's a citizens right act. Now we go to the healthcare model. What's fundamentally happened is we've consolidated healthcare. There are people called GPOs and PBMs. Are you familiar with those guys, Joe? I just learned about these guys.

Shiva Ayyadurai (00:52:36):

So what happened was in the '70s if there were 50 hospitals and you and I were hospital administrators and we were all buying all the equipment for our hospital, you're buying bedpans and I'm buying bedpans and they're costing 50 bucks. So 50 hospitals said, "Oh, let's hire this guy, Bill." Bill will do group purchasing first like Costco. So he started purchasing something, 50 bucks a bedpan. We paid 20 bucks. Right? And he said maybe we gave him some salary for that. Well, that was called GPOs. That was on the hospital side. Similarly, there was another group called pharmacy, brokers, managers, PBMs. They did it for the pharmaceutical side. So these two guys started controlling most of the supply. They don't own anything. They're just writing contracts

Dr. Mercola (00:53:20):

Middlemen.

Shiva Ayyadurai (00:53:21):

Middlemen. So even as drugs became generic, let's say there's three generic drug providers for insulin, if you want to get your drug into these hospitals, you needed a GPO or a PBM to be buddies with you and the GPOs and the PBMs.

Shiva Ayyadurai (00:53:36):

According to the, in 2000 there was a Safe Harbor act. They were given the rights to give kickbacks to the hospital administrators. Okay. So instead of the bedpan going from \$50 to \$20 maybe they raised it to \$30 or \$40 higher, higher costs, and they gave some kickback to the hospital administrators, which included seven-star vacations here, a flight to Vegas. It was all allowed. Okay. So we organized, it was basically legalized corruption. So the GPOs and the PBMs. If we look at their healthcare costs, this is just very mundane stuff. Without even getting into the alternative stuff, it's about a half a trillion dollars. That entire act should be removed. The other piece is that broadly we need to decentralize health care between the individual and the patient. The concept of centralized healthcare, which is what the purpose of this entire events are, that next year everyone's going to be mandated vaccines.

Shiva Ayyadurai (00:54:31):

"Oh, you want to get your driver's license? Where's your, where's your vaccine card, Joe? You want to go to a gym? Where's your vaccine card?" Digital certificate or your digital thing on your chip? Or something like that. And that's where this is headed to. And for Pharma, it is a captive market now. Imagine all 7.2 billion people because this is an international shutdown. Every prime minister, every president will say, "Of course we should do that." Or at least scared to be doing that. So now you have 7.2 billion people. Imagine we're all forced to be on a certain vaccine schedule. Thousand bucks per person. You're looking at about \$7 trillion. I mean, I mean there's these, this is an example I'm giving you, so for them to crash in the economy, to drive it to depression, to impose that for them, it's a relatively great return on investment.

Shiva Ayyadurai (00:55:18):

You make the fed print \$6 trillion, but you're going to make \$7 to \$8 trillion recurring revenue. It's basically a minor investment to get, I mean this is on a very mundane level, but on the health care side, you know, we have to do whatever it takes to decentralize health care back to the concept of, you know, you and I having a relationship, narrative medicine, because medicine and ultimately is it art and it's an

information science. The body is too complex to have top-down control. It has to be going back to the individual or more practitioners who they choose. And that's I think where the fight is and it's fundamentally, Joe, when you look at these three things I've said, it comes down to one word, decentralization. And it's not centralization with this fascism. The guy who advised Mussolini to come up with the concept of fascism? You can always trace one of these isms to someone, right?

Shiva Ayyadurai (00:56:10):

Adam Smith, capitalism. Well fascism went to mostly Mussolini's advisor, I forgot his name. And he had a very, reductionist view of the body. You know what? He had a top-down view. He said there's a central organ and all the cells are controlled by the central organ. And we know that's not true. The body, if anything, is a self-organizing system of 6 trillion cells, you know, 60 trillion bacteria, 380 trillion of viruses interacting together. It's a bottoms up model. So I think the opportunity here is to start educating people. It is supposed to be "We the people," and this does not mean it's going to happen without struggle. We may have to rise up and fight in ways that we haven't done before, just like those people did in the late 1800s and the idea is to compel people to think everything will be legislative. Like what I see.

Shiva Ayyadurai (00:56:58):

And I've been an activist most of my life Joe before I decided to run for Senate, et cetera. But the reason I never liked electoral politics was because I noticed there was a physics there. You had the establishment and people like to keep things the way they are. There's a people who want to rise up on their own and they may not be perfect everyday people. And then in between that Joe, there's another system here called the not-so-obvious establishment and it's the people who always drive people and they may do it purposefully, they may do it because they're dumb, is to always tell people, "Oh don't go build a movement on your own self organizing." Bring everything into the legislature, always drive people into legislative news. And what we've seen occur there is that they control all the cards.

Shiva Ayyadurai (00:57:46):

So we need to build a broad-based movement bottoms up. And you've seen this over and over and over again in history. You know, people rise up and then people create a legislature where things are supposed to be discourse and controlled. And I think where we've gotten to because of the not-so-obvious establishment, and you can apply this in many ways, is that people have been compelled to outsource their citizenship to others. And the reality is it's, it's really a glimpse of how anything's ever been achieved in human history. It's always been catalyst to share information. And that's sort of where I see my sort of humble role, to share information. But the idea is for people to recognize that they need to build a bottoms up movement, bottoms up. And I think it begins with taking care of your health. Yeah.

Dr. Mercola (00:58:32):

Well let's just get it in a moment, but I'm particularly curious about, you're running for the Senate. Did you actually get the nomination from your party yet?

Shiva Ayyadurai (00:58:41):

No. So, so last year I ran against Warren as an independent. This year I'm running as a Republican, frankly, just to be clear, I don't care for either party –

Dr. Mercola (00:58:47):

I know, but you know, you will always need a party nomination [inaudible 58:49].

Shiva Ayyadurai (00:58:51):

Yeah. So, so right now we have an amazing ground support. We have to get 10,000 signatures to get on the ballot. So it was me running against a guy called Markey, Democrat, and then they realize I'd probably beat him. They threw a guy called Joe Kennedy on the Democrat. But it's, but now they threw a Republican against me. I had a clear shot to the Republican nomination. He's got about a hundred Twitter followers.

Shiva Ayyadurai (00:59:10):

Just came out of nowhere. Clearly a Manchurian candidate supported by the GOP establishment. The good news for us is we have an amazing group of volunteers, mothers who, you know, working people who come out, bottoms up and, one singular issue, not one singular issue, but one compelling issue is health, Joe. They are all really, really upset with this mandated vaccine model. A lot of them, they are starting to connect the dots from a systems approach that, "Hey, without freedom you can't have truth." And so we're trying to unify a lot of these movements that were disparate. Even the 2A movement. Okay. Which, you know, people typically start, "They're just gun-toting guys." Right? But even those guys see the connection to the mandated medicine piece. So it's quite extraordinary. But it's totally bottoms up. Yeah, it's awesome.

Dr. Mercola (01:00:00):

A few years ago I was being considered to get the nomination from the Republican Party to run for Senator of Illinois, I say. And I refused it because I did some thought process and considered, what would happen if I would want it and it was not a good scenario and I would, it would be like beating my head against a brick wall knowing that there's nothing I can do. And I'm wondering, yeah, I mean it's, it's a great to be a senator, but you're still encumbered in this beyond-challenging process of, which seems like one individual, no matter how firmly committed can make a difference.

Shiva Ayyadurai (01:00:40):

Well, Joe, it's why — So I have a different perspective on this because I've been a student of political history for years.

Dr. Mercola (1:00:46):

Okay, good. I want to hear, yeah.

Shiva Ayyadurai (01:00:49):

So what, I see this as, as being part of a movement, okay? So if I were to say, well, I'm going to get into the Senate and I'm going to pass these bills, it's totally delusional. Okay. Delusional. However, if I say the things that I stand for, I mean you just heard what I said. I mean we've, we put them up on our side, on Shiva4Senate.com you go there, we have a health rights act and digitals, I'm sorry, digital rights act to health rights acts, citizens. It's, it's sort of bringing people together to truth, freedom and health. So

what's fundamentally happening, Joe, is that I believe it's movements, it's been political movements that have always changed the world. Not a Republican or Democrat, not the left or the right, but it's been people's movements and what we're dealing with this, with this COVID-19 crisis, even though it seems so horrible, and the reason these videos I've done, I think are going viral all over the world is because people inherently know something's wrong.

Shiva Ayyadurai (01:01:37):

And when it comes to their health, it's something that's beyond left or right. It's something that you're trying to figure out. "Wait a minute. It's about my health and what happens to my kids, kids, kids," and it's the economic piece. So we've hit a very interesting resonance here. A resonance frequency. So what I see running for Senate, imagine six years, a guy like me in, in the U.S. Senate and what we've done, you know, just with, with this video and you know, it's not like we have Botox here in lighting, right. You know? But it's the ability to bring, use that platform with the U.S. Senator every day, hammering the dysfunction, hammering the hypocrisy, because that will create a wave, I believe, you know, and that wave will compel other people to be active citizens. That is a win. Am I counting on putting a bill in and then passing the health rights act?

Shiva Ayyadurai (01:02:30):

No way. They're never going to do that. But you know what? The more rational things I do without uncompromising, when people say, "Wait a minute, what's going on? Right? I want this, this, right? And what he's saying makes so much sense," and it's at a level that can be used as a platform. Now if I didn't and that platform has to be part of a larger movement. And so when we're going, you know, I literally go out on the streets, Joe and I collect signatures. Everything we do is bottoms up. You know, on our website when people donate to the campaign, I give them a book, 'cause I don't like taking anything – called "How Your Body Is a System." We give them a tool to understand system dynamics. So whatever happens with that, we're going to win anyway because we would have, inspired people to say, "Wait a minute, the ankle bone's connected to the foot bone."

Shiva Ayyadurai (01:03:19):

I heard this guy running and he just taught me this stuff that no other politician has taught me. And that's what the founders of this country were. There were people like you and I, they were doctors, physicians, blacksmiths and engineers. They actually created stuff. These people are children of the Enlightenment, right? They came with understanding science. Washington was a surveyor and he was a farmer. Jefferson was an architect. What do we have now? 70% lawyers and lobbyists. They work in the abstract world of moving words around and manipulating contracts. They don't work in the nuts and bolts of reality, so I think my winning here would be such an – some people have said some great revolutionaries have said, "People need inspiration" and Massachusetts, in my view, Joe, is a center of the deep state. If I use that term to refer to the center of the military-industrial-academic complex.

Shiva Ayyadurai (01:04:08):

If you go to Cambridge, Massachusetts, there's a square called Kendall Square and you look around, you'll see Google office, you'll see Facebook, you'll see Amazon, you'll see Novartis, you'll see MIT, you'll see every Harvard, right. And it's the center of the deep state because every major international, probably personal runs at some country's gone through there, every major economic collapse could be traced to some professor at Harvard. Okay. What we're talking about is that is the center of the center, you know, of pretty much the world and the people who run it are one united party. They're not left or

right. They're not Republican or Democrat. There's no way they want me to get on the ballot this time. Okay. So, in my view, our struggle in Massachusetts really symbolizes the struggle for everyone out there to really, you know, for truth, freedom and health.

Shiva Ayyadurai (01:05:03):

That's what this is becoming. And I think I just happened to have, was very fortunate from my background, you know, having been able to get this education, being an insider there, understanding how they work and to be able to articulate this. And bottom line, the people who are coming, Joe, are working people who are, they're not like students alone, right? They're not politicians. Everyone on our staff, 70% of our volunteers are now women and they're mothers who are really concerned about what's going to happen to their kids. So it's, it's really, really inspiring.

Dr. Mercola (01:05:39):

Is Massachusetts taking away the vaccine exemptions now?

Shiva Ayyadurai (01:05:40):

Yes. So, so they have a bill to, so when I got involved in September, you know, I've been involved in the health thing for years, with CytoSolve and system health. And we actually created a seal called C.L.E.A.N. food certified.

Shiva Ayyadurai (01:05:52):

Right? So there are many things I've been doing in health for 40 years, but when I looked at the vaccine thing, there were people who've been involved in this movement. Joe, it's a different discussion we can have, but it was always legislative, legislative. I said, look, we need to get on the ground. We need to unleash hell on the ground. The people in New Jersey, for example, took that message and we stopped them there. It was quite inspiring in January 13th, it was a big victory for the anti, well, let me put it, for the medical freedom movement and it was right then coronavirus came. Okay. It's quite interesting to me. You know, if you want to start talking about engineering this, someone in a, in a dashboard is saying, wait a minute, Hong Kong is on fire. Wuhan, wait a minute. They just want this thing and wait a minute.

Shiva Ayyadurai (01:06:35):

What just happened in New Jersey? People came bottoms up and they want it. They do not want people to come bottoms up. They always want intermediaries. You know, they always want, "Go negotiate with this legislator, hire a lobbyist," and it's never going to go anywhere, Joe. It has to be bottoms up movement. It has to be a movement by the people.

Dr. Mercola (01:06:57):

While you've got a lot to say about system's health and how it applies to this pandemic. And so why don't you highlight some of your recommendations and expand on what you think people should be doing to protect their, to build up their health. So they immunized themselves normally and have a strong immune system so that when they encounter this virus in the environment, they'll have a good strong innate immune response and, and maybe have a few sniffles or a little fever and that's the end of it.

Shiva Ayyadurai (01:07:26):

Yeah. So, I think the first is education judges. Two parts of that. The answer I have, one, is for people to understand, hey, the body as system. Okay. So in 2007 when I finished my Ph.D., you know, I went back to India for about two years on a Fulbright to study the interconnection of systems biology and traditional medicine. And what came out of that was I found that the traditional systems of medicine, the language that they use, which we think sounds weird to the typical westerner, you know, bodhaka, pitta, kapha, if you know ayurveda or fire, water, earth. It turns out the words there are directly related to engineering control systems theory. And I wrote a very interesting paper in an engineering systems journal. This was an, it basically showed that the ancient rishis and yogis were actually looking at the body as a system and the words that they use actually correspond one-to-one with Western control systems theory.

Shiva Ayyadurai (01:08:16):

Anyway, when I got back to the United States, I offered a course at MIT, 200 300 people would show up on a Thursday night and we taught them this very different way of looking at the body in different terminology. Anyway, so that became an institute that I have called systems health and I also built a tool called "Your Body, Your System" that anyone can use. Okay. To understand their body as a system. And it's sort of like, I know some of the personalization stuff you've done, but it uses engineering systems principles. So the first thing I want to teach people is that if they can start moving into understanding that their body is a system and they're very simple principles, you can understand how your body moves, the forces of transport, conversion and storage and how foods and exercise actually modulate those. So that's one thing that people should understand.

Shiva Ayyadurai (01:09:04):

So people want to go to "Your Body Your System," they can understand that. The second piece is on a very tactical level, at the molecular level, coming from the Western side, what we can do, well, I think you just go back to very fundamental basics. Okay. The sun, you know, is a very powerful vehicle. Okay. You just said you were out walking right in the sun –

Dr. Mercola (01:09:23):

In the sunshine on the beach. I live in Florida and they closed most of the beaches. But fortunately, I live on a county that, on the East coast that is somewhat enlightened and only close the beach for one day and now allow anyone who wants to walk or run in the beach to go back on.

Shiva Ayyadurai (01:09:40):

Yeah. And especially people of color, we need more sun.

Dr. Mercola (01:09:42):

Absolutely.

Shiva Ayyadurai (01:09:44):

Yeah. So what you have is, the sun, the UVB radiation, you know, supports the generation of vitamin D. and I think both of us would agree. If you can get it from the natural source, that's the best. You can have 15, 20 minutes. Now, if you can't get it from there, you know, D3 is a very powerful supplement,

cholecalciferol. But what does vitamin D do? I have a couple of videos, but very simply, why is vitamin D valuable? And by the way, again, most MDs are not trained in this. Vitamin D creates these things. And I know you've talked about cathelicidins, in some ways the vitamin D's like a musket. The cathelicidins are the bullets. Cause these cathelicidins literally go disrupt the membrane of be it the viruses or be it the, the bacteria, et cetera. So you have a direct, very powerful medicine, which is vitamin D. In the letter I wrote to the President, you know, you know, I was trying to modulate immune health and economic health, Fauci's model is to shut down everything.

Shiva Ayyadurai (01:10:41):

I said, look, let's use some of the principles of modern medicine and partition people into four groups. Those people who you say have COVID-19 and actually have it, those people who are in critical condition, those people who are immunocompromised, you know, pre-existing conditions. And those people are "healthy." Okay, well the people who have COVID-19 and are the immunocompromised, let's give them at least during a short period of very high dosage vitamins D and A, 400,000 IUs of A, you know, for two days and 50,000 IUs of D for two days. By the way, these dosages are well recorded in the literature, you know, in fact of their pediatric dose, people used to give for measles. So you give those people, they immediately give them support. Why? Because now the body can, with vitamin D can generate those cathelicidins as an antimicrobial.

Shiva Ayyadurai (01:11:31):

The vitamin A is also very important. Again, a lot of MDs unfortunately didn't get this education is that vitamin A build those cytokeratins, which literally build "walls" around your epithelial cells and protect you. So that's the second piece. The third piece is vitamin C for the critically conditioned people. Vitamin C, a hundred grams, you know, IV drip. Again, these are proven solutions people have used in stress-like conditions. And for the broad mass of people, you know, it's a dosage of vitamin A in around 10,000 IUs, vitamin D 5,000 to 10,000 if you're not getting it in the sun. And then vitamin C, you know, 250 to a thousand milligrams. But more importantly, we all know as you age, the thyroid function starts depleting and your body's not able to convert these carotenoids into vitamin A. So the iodine and the iodide, you know, that combination about, you know, there are different brands out there.

Shiva Ayyadurai (01:12:28):

People could look at like Lugol's, et cetera, 3 drops for kids, 6 drops for adults. But these are just pillars. I'm not saying they're not amazing. Other solutions, zinc and oregano. I mean there's a whole bunch of pillars, other components. But if you go back to the basics, the sun, okay. Every culture always revered the sun, so vitamin D. Vitamin A, the highly rich green vegetables, right? Or the dark vegetables, which have high carotenoids. That's vitamin A. So this is sort of just basic, which supports your immune health, supports your immune system, you're essentially enabling the A and B, they're not just vitamins, they're hormones. They modulate many of the processes in the immune system. Four months ago, Joe, I gave a talk at the National Science Foundation. I was asked to give their distinguished lecture. And what I talked about is when vaccination came in 1960s, mid-sixties, right when the National Vaccine Act was put into place by John Kennedy, they had a very nascent understanding of the immune system, was sort of a two-box model, the innate system and the adaptive system.

Shiva Ayyadurai (01:13:33):

Well, now we know we have the interferon system, that gut microbiome, it's much more complex. But what does emerge out of that understanding is that it is a dysfunctional, you know, weakened immune

system that overreacts to, to the pathogens that attacks our own body. So what we want to do is modulate that system. So you want to have things that, you know, immunomodulate. The D and the A are not just protectors, antimicrobials and form that cytokeratin walls, but they actually modulate many different processes. Obviously the other thing is sugar, okay. You know, when you eat a lot of high-sugar foods, your body produces, you know, things like candida, which create gliotoxins, which knock out your macrophages and knock out your T-cells. Two of the six cylinders are X number of cylinders. So what does your body do when those are knocked down?

Shiva Ayyadurai (01:14:23):

It only has to rely on your cytokine storm to handle things. So I would, you know, diet and food, particularly the reduction of sugar would be very, very valuable for people to protect them from these infections.

Dr. Mercola (01:14:38):

Yeah, I would add to that because I used to believe pretty strongly that sugar is, was useful to remove from the diet and you certainly want to have limited amounts of it. Certainly processed sugars, but me even more important I think are the industrially processed vegetable oils. Sugars, especially if you're exercising, you can feel that acute increase in blood sugar can be readily compensated for and it can go low and get lower pretty quickly and it's out of your system. But in industrial processed vegetable oil, it breaks down to fatty acid, which gets integrated embedded in your cell membranes. It sticks around for weeks or months or even longer.

And that can cause definitely long-term havoc in your system. So I think they're even more dangerous in the sugar. So, but anyway, one more point too about the sun. It's not just vitamin D because if you're getting sun exposure on naked skin, the near infrared is important to stimulate the release of nitric oxide. And we, there's clearly studies to show in the coronavirus and SARS, not necessarily SARS-CoV-2, or CoV-2, but it impairs replication of this virus in nitric oxide. So sun exposure and exercise will help to increase the nitric oxide production.

Shiva Ayyadurai (01:15:48):

Yeah, I mean, one of the, you know, about five years ago, you know, remember I told you we created this technology CytoSolve, which can model molecular mechanism, one of the earliest things we did was to show the value of that in the endothelial. You know, there've been some very interesting experiments when you exercise or run, blood flows, you know, in your endothelial and the blood flow actually turns on a structure on the endothelia called the glycocalyx. And when the glycocalyx moves from blood flow, your body releases nitric oxide, which has very, very beneficial effects. So we did one of the first things to model that entire process. And what that modeling definitely does show is that obviously exercise is valuable. Arginine is very valuable because in the presence of arginine in your body does put out more NO, but that NO has many, many supportive processes downstream in the immune function as you just mentioned.

Dr. Mercola (01:16:42):

It's not that you don't necessarily take a nitric oxide supplement, arginine and citrulline, there are other precursors you can use, but ultimately you have to activate it because when you make nitric oxide, it's

stored in these vesicles, in your cells, and it's not until you release it that it becomes problem, which near-infrared will do and exercise will do.

Shiva Ayyadurai (01:17:04):

Yup. I think, I think that, I think the key thing is this is while people are at home, it's almost like we've taken two steps back. I hope as people listen to our conversation here, people realize the immense power they actually have to, A, recognize that this, this is really not about a virus. This is about health at a very fundamental point. It is your immune health and it is your economic health and they both sort of intertwined together in what's taking place. I think the opportunity we have is for people really to recognize it. They have a significant opportunity to take sort of two steps back while all this is going on and really take responsibility and recognize that they in fact have many ways to understand their immune health. The solutions are actually relatively simple, more simple than we think. Those in power want to make these things very complicated with fear.

Shiva Ayyadurai (01:17:54):

So we outsource our, frankly our responsibility to them. So I think the immune health piece, some of the basic things we've talked about that we've shared is something everyone can take advantage of. You know, vitamin D, vitamin A, and there are many opportunities now for people to learn on their own. That's one piece. The other pieces on the economic side, I think people should recognize that all change has always occurred through us, connecting with one another and building movements. It's never occurred top-down. And so this interesting point, Joe, I'm writing this, finishing this book, Joe called "The Climate of Science" and it's a play on words, but it's got the sun rotating around the earth, right? And it's, and the subtitle, it's worse, much worse than you think. But the point is that I think when you, look at what's going on, we have an incredible opportunity to recognize that, that truth itself is basically manufactured today, quote, unquote truth is manufactured.

Shiva Ayyadurai (01:18:56):

And if we go back to basic principles, we can actually not only use our own intuition, our gut instinct, but use very fundamental principles. And I think one of the biggest hopes we have is that every day working people, I would venture to say at least more than 50% don't buy a lot of this nonsense. When I'm collecting signatures, Joe, will go to sort of the elite neighborhoods like in Cambridge, these people are so scared, right? To not want it, I'm not saying "Don't wash your hands," but then we go to working class neighborhoods in Central Mass. People come up, they sign our papers, they have a much more balanced view of what's going on. So working people, you know, engineers, the plumbers, electricians, people actually have to run businesses. We have to deal with customers. In many ways we're dealing with the nuts and bolts of reality.

Shiva Ayyadurai (01:19:41):

The good news is there's at least 51% and more of us right now, still. So it's not like people should feel all hope is gone. I think the issue is that people should awaken ourselves to recognize that we should start taking responsibility for our health. We should connect with those people who have a common sense approach. And, but at the same time be aware that there are people who want to control our lives. And what was saying was in the book, what I talk about is it's either power, profit or control, which can lead to a dark age or it can be a golden age. And so it really comes down to how technology is

deployed and who owns technology. So if it's a Gates, if it's a Zuckerberg, it's a few guys at Google, it's a WHO and the CDC, that is a cabal who wants to move it to a dark age of control, power, profit and control.

Shiva Ayyadurai (01:20:31):

And so that's where we're at. That's when we put out this, interesting thing called "fire Fauci." It's gone viral. I think it was trending on Twitter right now, and it was basically, I think 20,000 30,000 people have signed that petition, nearly 300, 400 doctors. So there's still a part of the medical community that gets it. So I think we're right at that inflection point, Joe, where we can have an amazing awakening or we could head into the dark ages. Nothing is written in the stars. It's really comes down to what we want to do.

Dr. Mercola (01:21:00):

I agree. Developing community around this issue is really a key, but how do you do that in this age of electronic surveillance and, essentially communication channels are essentially monopolized by the surveillance capitalist.

Shiva Ayyadurai (01:21:17):

Yeah. I think you're bringing up a very, very important issue. That's why I think we have to rally around something that's simple so people can educate themselves. You know? That's why I've tried to make it simple: truth, freedom and health. Truth, freedom and health. Because in that slogan, it's pretty much, you can devolve that and he goes deep as you want. But I think people need something tangible. Fortunately, I've had a little time to think about these things, but I think people should recognize where does truth come from? Where does freedom come from? Where does health [come from]? But I think it starts with education and an awakening of how these things are interconnected from a systems approach. Otherwise, it's always going to seem like too gargantuan of a problem to handle, Joe. And I think that's what those in power want. They want people to feel depressed. They want people to feel helpless. They want people to feel hopeless.

Shiva Ayyadurai (01:22:05):

Like you can't figure out all this. And it actually comes out as something very simple. Without freedom, you can't have truth. Without truth, we're never going to have health. Without health, we can't fight for freedom. And if people sort of focus, if people sort of focus on those three things, it starts giving them a framework in their own local communities to understand what they should not ever give up. I mean, fundamentally Joe, I think it comes down to what does it mean to be a human being, right? Yeah. The basics of, "Are we an automaton," a slave who's going to just be a unit of production in someone else's massive engine where we're just a unit, we'll be vaccinated on this schedule, then we'll go to work on this schedule, right? And we'll get a paycheck on this schedule. It's basically, you know, that whole "Metropolis" movie for many, many years ago.

Shiva Ayyadurai (01:22:52):

I agree that we are human being. So it's really an individual's choice. I don't think each individual can forgive themselves of their own responsibility in this, you know, everyone has a chance, to choose, what

they want to do with their lives and what does it mean to be a human being. Now, let's say a set of people want to choose that. They want to be an automaton, they want to be part of the machine. Well, that's what they're going to be part of. But I don't think people want that. I think the human spirit is pretty, pretty alive from what I've seen.

Dr. Mercola (01:23:24):

All right. So yeah, the key is avoiding slavery and tyranny. And I think more importantly, to focus on this as being an opportunity.

Shiva Ayyadurai (01:23:34):

Exactly.

Dr. Mercola (01:23:35):

This is good. This isn't bad, this isn't devastating, that the world is crashing.

Shiva Ayyadurai (01:23:37):

But no, this is an opportunity to reframe it in the positive. I think it's a very powerful position. They need that. Thank you for being a light. Thank you for being a catalyst for this necessary movement and really for, giving people hope and courage. I think that's what we do.

Shiva Ayyadurai (01:23:55):

And I think one of the things I say, Joe, to everyone is, you know, "You should know the truth. You should be the light and you should find your way." Which means it's time that everyone realize that they're an agent of change. That by understanding how systems work, they can also be a light unto themselves to lead their way, but also to lead other people. We need all to start learning, teaching and serving each other. And that's really the opportunity for all of us in whatever small or large way.

Dr. Mercola (01:24:20)

Yeah. Yeah. Well that's a powerful message. Thank you for sharing it and thank you. Alright, well good work. Thanks.