GMOs REVEALED

Episode 5
Transcript

Patrick G.: Welcome to Episode 5 of GMOs Revealed. I'm your host, Doctor Patrick Gentempo, and I'm really excited for you to experience today's episode. We have two power hitters today. We have Sayer Ji, the founder of GreenMedInfo. And he is somebody that has been paying attention to the GMO topic for a long time. And he has got a depth of knowledge around this issue that is startling. He's also a beautiful soul that's very articulate. I could listen to him all day long.

We also have the Health Ranger, Mike Adams. And I got to tell you, Mike Adams is a very enigmatic character. He really cares about this stuff. He's looking at the big picture. And he was like an encyclopedia with the information that he had organized in his mind and the way that he could deliver it.

So two big, big interviews today. Lean in, pay attention. These are things that can change your life and can change the world.

Great to be here in southwest Florida with you. Tell us your name and give us your background.

Sayer Ji: Sure. Sayer Ji, and I'm the founder of GreenMedInfo, which is a natural health resource available to the world for free. My background is really health advocate and activist and educator, and I just love helping people get access to resources and information that's already available in the public domain. I just try to make it easier for them to access.

Patrick G.: Now, the GMO issue is not new to you. Correct?

Sayer Ji: No. Actually, it's one of the original issues that got me thinking a lot about, okay, how far do I want to go. Like, it was clear. The writing was on the wall. The research was accumulating showing that, for example, Round Up was incredibly toxic. But at that time there was no march against Monsanto. There were a few books out there. Jeffrey Smith, who I have great respect for, had Seeds of Deception.

But it was just starting to come on the radar. And those who were talking out about the dangers of GMOs and Round Up were still being labeled anti-scientific quacks, troublemakers. So I was doing a lot at the time and writing on the research I was seeing coming through the published literature pipeline. And I was getting really

concerned because it was showing that there were indications of cancer. There were indications of liver and kidney disease.

And I was reporting on it along with a few other activists that I know in the space of online health advocacy. And there was starting to become indication that we were being spied on, literally, by .mil and different government agencies. It came out of a report in Germany that there was evidence that GMO activists were being targeted, literally, by the government in collusion with corporations like Monsanto. So I was starting to be concerned about my own safety and this work.

But then, of course, with March Against Monsanto, a critical mass was reached where suddenly it was like the bullseye I had been putting on my forehead and my brand's forehead was neutralized because all these people stepped up and they were all saying enough is enough, at least label these things. You can't poison people and not give them a choice. Right? That was the basis of informed consent.

So I got into this at a critical time, when there were a few voices out there in the wilderness, the research was starting to accumulate, and then it just sort of supernova'd. The whole world was like, "Enough was enough."

Patrick G.: So in the beginning, when you were out there on your own and you're looking at the time lines where, like you said, there's these few dissenting voices. Maybe there's the big corporate interests and maybe even government interests that can sort of discredit you or worse.

Sayer Ji: Yes.

Patrick G.: Were you surprised by the March Against Monsanto, at least as far as the amount of play that it got and the volume of people that engaged?

Sayer Ji: Absolutely. It was sort of like the beginning of the world realizing that social media was becoming sort of a dominant form of communication and collaboration, because I recall the founder of the March Against Monsanto page was just a simple person that said, "This is enough. We need to do something." And it just sort of took off from there. So it was an example for me of how we have

so much strength in numbers. So web 2.0 was empowering us on a level that was even displacing mainstream media propaganda.

Patrick G.: You talked about research that you started to review that kind of raised alarm bells in your own mind, back in the beginning. So what was that research? What did it tell you? And then maybe how has it evolved over time? Because a lot more information's coming out now.

Sayer Ji: Great question. So I think that many of us initially were thinking, okay, the problem with transgenes is that when you insert a gene from one organism into one that it wouldn't naturally be found within, that there would be a problem because genes produce proteins and therefore there could be allergenicity associated with these novel, new proteins.

But that was just the tip of the iceberg, because while that's true and it's still a concern, it really evades the primary problem, which is that in the genetically modified organism terrain of commercial products that you and I are advertently or inadvertently consuming, like GMO corn, there's chemicals that are required in the growing process that are going to contaminate that food regardless of whatever transgene proteins are in it. The stuff is literally saturated with poisonous chemicals.

So glyphosate is the most well known. So the very system we're talking about, which is the sort of monoculturing GMO system, requires that all the plants in a particular field be sprayed with what are essentially biocides, meaning they kill life. It's a very broad spectrum and indiscriminate. So you're talking about the microdiversity of the bacteria in the soil, which is the foundation, actually, for fecundity and fertility generally as far as nutrition and the plants that grown within that soil. Then you're dealing with the insect life, the animal life, and of course the human life that eventually ends up eating the contaminated GMO product.

So when I started looking into the chemical problem, it became clearer to me than ever, that it's regardless of whether or not you think that you could have a sensitivity to a GMO protein, you are not immune and I'm not immune, no one's immune, to the chemical problem. So that's what really started to concern me. So when I started looking at the research on glyphosate, it became so clear in the literature that on a wide range of health concerns ... In fact, presently, if you go on our site, you'll see 63 diseases that have

been linked just to glyphosate formulations. Round Up is the most common glyphosate formulations, but there are others. Then you have 29 distinct modes of toxicity.

So we think about, obviously, liver damage as a consequence of chemical exposure. We think of cancer. But we're also talking about things like damage to the immune system and a wide range of adverse effects. So the literature was making a very powerful argument that this is unjustifiable. This exposure could be prevented. At least, consumers should know that what they're eating was raised in that particular way. But there's an even larger problem, which is that if you look at non-GMO plants, ostensibly non-GMO plants, like wheat, today, you'll find that they use glyphosate as a pre-harvest desiccant. So basically enables them to harvest it quicker, make a greater profit, get it to the market quicker. So that stuff is full of Round Up as well. And so if your primary concern is reducing or eliminating agrochemical exposure, then just looking at the label of non-GMO certified product isn't going to tell you that information because that non-GMO product with wheat in it may actually be shot through with glyphosate in Round Up.

So it really is a challenge for the consumer to know how to protect themselves. And that's why the argument that we should be labeling GMOs is so vital to informed consent and the basic health rights that we have, that it's insane and it's extremely challenging to not get upset when you think that we still don't even have that basic right intact.

Patrick G.: Yeah. I mean, when add up these elements ... published data showing multiple types of toxicity in related pathological conditions, and then a request or demand saying, "Well, label so we know what's in there," and that there's huge pushback not allowing that or to say, "No, we don't want to have truth in labeling" with what we're consuming as far as food. So this must have spirited you along the way as far as saying, "Wow, there's really something wrong here!"

And you had data ... I guess, even in the very beginning, you were seeing data that supported this. Right? So how did it evolve over time as you were following the issue?

Sayer Ji: Well, what was interesting is that I was just responding to the literature that was coming out, and I was reporting on it. And then

of course, given how a lot of people today get their information, through social media and websites and email lists, I was surprised by how many people resonated with this information and started to share it virally. Just sort of took off from there. Then you had other organizations, like Jeffrey Smith's, the Institute for Responsible Technology. And when you look at the little ecosystem of sites and advocates online growing, it just became clear that we were reaching a critical mass, is that the mainstream propaganda saying "They're safe, they've been tested, you shouldn't need to worry about labeling," was completely eclipsed by those who could see in the very literature itself that these obvious concerns ...

I mean, you could have no college degree, you could have no high school diploma, and know as a parent that you'd rather your child not have food that has chemicals in it than food that has no chemicals in it. But we're being looked at as if we're quacks and crazy and anti-scientific for being concerned about the most fundamental human health safety issues.

Patrick G.: And there's really at least two threads. One that you follow is the actual GMO technology itself and what it means to genetically modify a food, and what the effects might be there. And the second thread is what's utilized on these foods in the way of these herbicides or pesticides, what have you. So do you think both are equally disturbing? Is one more than the other? Or how do you see it?

Sayer Ji: I used to think that it was most disturbing that we were spraying our foods with a number of very harmful substances. Primarily because the literature started to indicate that glyphosate was really only the tip of the toxicological iceberg. In fact, because the formulations of glyphosate, Round Up being the most obvious one, use other ingredients that help to get that chemical into the cells of, presumably, plans, but of course animals are also susceptible ... like surfactants that reduce the sort of ability of that plant to resist pulling in the chemicals like glyphosate.

And what was happening was research was showing that the formulations were 100 or more times toxic than the individual compounds. And this is a common problem in risk assessments for pesticide exposure, is that the primary way we regulate these things is we assume that you can take one chemical and then do this LD50 method of basically giving a dose to a test group of usually mice or rats, and killing 50%, and then saying, "Okay. Well,

that's the LD50." The lethal dose that kills 50% of this population. "Let's look at their weight. Let's compare it to say, a human, and we'll just extrapolate to what a safe level of harm would be."

So that's this concept, that there is something called an acceptable level of harm, that runs diametrically opposed to the precautionary principle. So that's really the problem, is that it's sort of been legislated and institutionalized into our system that you have to almost prove as an exposed individual over generations that something that was released onto the market is causing harm. Whereas the precautionary principle says, "Hey, if there's a cell in animal study that shows glyphosate, even in a little bit of a concentration, can cause some harm, well, you know, the manufacturer's responsibility is to prove that's safe in a human." That is impossible to do because it's unethical. You're not going to poison one group of humans in a study to try to prove something.

Well, okay. If that's the case, is it okay then to release into the entire biosphere in billions of people's food supplies chemicals which we know are toxic in cell and animal models, and then wait generations to see if it causes a problem like cancer? That's exactly what's happened. So-

Patrick G.: When you say it like that, it sounds like pure insanity. Right?

Sayer Ji: Exactly!

Patrick G.: But also, how can they give no thought to the idea of the biosynergy. Saying you start mixing things together, you got a new thing here that's not what was the isolated thing, if you will. Because there are synergies between these things. Right?

Sayer Ji: Yes. In fact, that's the problem. But that's also sort of the light year jump we've gone in toxicology. In the course of just the past 20 years, I'd say, there's now an understanding that the dose does not make the poison in most cases. Because the assumption has been sort of modus operandi now for probably over a century ... is that the amount of something is going to cause a very linear correlation, a very linear response in the organism, that it's exposed to this chemical. The idea is that actually the smaller the concentration of a particular chemical, the greater the toxicity can be, let's say, as an endocrine disruptor.

So in other words, a little bit of glyphosate, maybe the parts per trillion range, might actually be more effective at simulating the activity of estrogen as a carcinogenic substance than if you had a higher concentration. Because in a higher concentration, that cell would probably go through a proptosis. Realize, "Wow, okay. I'm so damaged, I'm not going to turn into something good for the body as a whole, like a cancer cell. I'm just going to die." Well, that's exactly what happened several years ago. A study came out that showed in a breast cell model that glyphosate in the parts per trillion range was actually acting as a carcinogenic substance. It was acting like estrogen, and promoting the proliferation of those breast cells.

So technically, therefore, the dose does not make the poison. And in fact, the lower concentration of a particular toxicant, the greater the toxicity can be as an endocrine disruptor.

Patrick G.: Wow. And that's really disturbing because that's not tested for at all. Right? In other words, if you're just saying, "Well, here's a lethal dose. We'll back off of that." And that's a lethal dose in mice, and again ... I think mice are a little different than humans. I don't know. A little bit. So that in and of itself seems completely illogical.

But then you start to say, "Well, are they testing for ill effects of health that aren't lethal? At least initially lethal, but over a protracted period of time can create chronic illness?

Sayer Ji: Absolutely. In fact, the problem is so profound because now, given just decades of using literally hundreds of millions of pounds of glyphosate on the arable surface of the land in this continent or around the world, the USGS did a study where they sampled air and rain samples in the Mississippi area, and found 75% of them contained measurable amounts of glyphosate.

And so now we know that it is something that is so omnipresent that we can't even not be exposed to it by breathing or drinking water or even letting the rain fall on us. And so that wouldn't be a problem if the old toxicological risk assessment model was valid, where again, you need larger quantities of glyphosate to cause a problem. But now we know that's not true. Very infinitesimal amounts have the ability to have profound, adverse effects on the human organism.

Patrick G.: So this is disturbing, now. Because now we're saying, "Okay. I'll eat organic or I'll eat non-GMO, really try to get away from all that. But I'm getting rained on."

Sayer Ji: Exactly! Well, this speaks to one of the most important of all elements of the problem, which is that, as you know, once you release into the biosphere a transgene, it can't be recalled. Theoretically, plants might reject it, or it may not confer some type of fitness survival advantage and those plants will die out. But the theory is is that once you do that, you release these transgenes into the biosphere, it's opening Pandora's Box and will never be closed.

Well, the problem also with the GMO agricultural model is that it is full spectrum dominance of the biosphere. It's carpet bombing an entire swath of life, a whole swath of biodiversity from the animal to the plant to microbial life, and destroying a broad spectrum. Now, what does remain is often resistant. But we know in animal studies, as well, now that clostridium, like the origin behind tetanus and botulin toxin ... which botulin toxin, 2.2 pounds theoretically can kill every human on the planet, it's that toxic ... is that glyphosate has been proven to shirt the microbial balance towards a propathogenic profile, including Klebsiella as well.

So when we're altering the biosphere, wide spectrum altering the bacterial populations to contain antibiotic resistant genes, and then also killing off the beneficial flora, then we're also now setting up a theoretical nightmare as far as our microbiome, because our microbiome, which you of course know, constitutes 99% of the genetic contribution of what we are as a species. In fact, some argue we should be reclassified as a holobiont, which includes all the organisms that co-evolved with us to get us here. Viruses, bacteria, fungi, even parasitic worms like helminths, are now being re-contextualized as essential to our health.

So if those things are now being killed in the biosphere, and we can't replenish them because we don't have them in our food anymore or in our air or the water we drink, well, then, that's the very definition of our species is being threatened. So what's happening is that it's a widespread chemical apocalypse. And that sounds like hyperbole. But it's true. When you are killing, literally, innumerable entities that are essential for the well being of ourself and our planet as a whole, then you can't call it anything but a crime against humanity.

Patrick G.: Well, in a sense, it's sort of a microbial genocide. Right? You're wiping out particular species, populations, which then is going to cause other ones to emerge and with what you just laid out, it's kind of disturbing where that balance would tilt to.

Sayer Ji: Absolutely, because what seems to be happening is that the prevalence of antibiotic resistant bacteria are such a concern ... The CDC has declared basically complete incompetence vis a vis this threat. In fact, they called ... Frieden, who was the CDC director, said it's nightmare bacteria and we have nothing we can do against it.

Well, they're not taking into account how this originates largely in the way that we're producing food. Starts all the way in the GMO fields to the animals in the confined, concentrated animal feeding units, and of course we eat that food and by the time we look at our own constitution, we're just done. We're just fried.

Patrick G.: Well, so, I think in the beginning, as you're looking at this as a thought experiment, you can logically get to some of these conclusions. But now the data is actually showing that this not just abstract thinking. This is real and measured.

Sayer Ji: Absolutely. Probably the most disturbing new development in GMO technology as far as it pertains to human health and our food supply is that Monsanto and Dow Chemical are now innovating a new type of genetic modification that basically takes advantage of the way in which cells naturally regulate themselves.

So we know about the human genome. It's been the focus of science now for half a century. The holy grail. Let's just the protein coding genes in the human genome and then we'll figure out how everything works and we'll try to cure disease, etc.

And so what happens after the human genome project, there was this great disparity. Okay? In 2000, they're like, "Wait, we only found 22,000 genes that code for proteins." The human body has at least 100,000 genes. So clearly, there's not even enough information there to account for how we came up with the physical blueprint of our body.

So what they started to realize that the dark matter of the human genome, which is about the 98% that they once called junk, right? The non-coding part of the DNA actually is full of useful

information. In fact, most of it is transcribed into RNAs and it's the RNAs, these really small RNAs, that actually orchestrate the expression of most of the protein coding genes in the human body.

So what happened is that with this discovery, the focus went to RNAs as being crucially in basically figuring out how everything works. And so the biotech companies jumped on this and realized that instead of having to pretty much shoot a bullet into the nucleus of a cell to try to change the DNA and create a new transgene plant or irradiate the nucleus is another method, or use some bacterial, viral vector ... Instead, they're manipulating the RNAs by trying to interfere with the transcription of genes into proteins. So what happens is the genes go to RNA like messenger RNA, and then that turns it into a protein in the ribosome. So what these small RNAs do is that they interfere with that transcription. And that's how they silence genes. And it's this process, this dance, that accounts for the miracle of the body.

Well, what happened is that in 2008, Monsanto published a study that was in the Journal of Food and Chemical Toxicology, and it was about the endogenous RNAs in grains like rice. And what they found was shocking. Was that if you just take rice alone, there's literally over 100% perfect complementary sequences between RNAs that occur naturally in the rice and then genes in the human body across every possible function. Over 10 of these genes just regulates the cell cycle. So every cell in our body requires those genes to function properly. Well, these rice RNAs can directly silence those genes.

Now, their argument was that evaluating rice and corn and soy, because those food have been in the human diet for theoretically hundreds if not thousands of years, they're perfectly safe. They're like, "Okay, we found hundreds of perfect matches where these RNAs in foods could theoretically silence all these genes essential for our health. But because they've already been in our food supply, they're safe." That's all fine and good, but they weren't accounting for what happens when they genetically alter a plant. So if they're altering the genes and the gene expression in, say, Round Up ready corn, literally hundreds of downstream, unintended or off target effects could occur that would then affect the RNA profiles in the plant, which then could dramatically alter the functioning of every cell in our body.

So technically, what Monsanto did is they uncovered another Pandora's box which they're trying to capitalize on because they know they can create all these technologies like a new EPA approved pesticide that they spray with RNA-interference molecules that kill insects. Or that they can innovate new corn or soy that now manipulates the RNA interference systems. But what they fundamentally did is they discovered that the foods that we eat, these plants like rice and corn and soy that they've been altering, can completely shut down the expression of genes that are essential for our health.

Patrick G.: So this is interesting, because you said in the beginning the major concern was what was being sprayed onto these crops. Now we're starting to migrate, see that technology itself can pose real threats because of unintended consequences. Saying, "Oh, we're going to be precise. It was a strict A to B type of a relationship we're genetically modifying." Right? Saying, "Oh, well, if you do this to that, that should have no effect."

But you're starting to say that, "Wow, there's sort of a ..." you described as a Pandora's Box. You're unwrapping things here that have consequences that we can't try to predict. And you've said one other thing is that, in essence, you can't unring this bell, either. It's released into the environment now.

Sayer Ji: That's a great way to put it.

Patrick G.: So this seems that it's very disturbing as to what can happen, which I find interesting. Monsanto published this paper, you said, in 2008?

Sayer Ji: Yes.

Patrick G.: So was the recommendation we shouldn't be using this technology? Or where did it lead?

Sayer Ji: That's a great question and way to phrase it. Basically, what the Monsanto study showed us is that the new technology they're employing is really what I would call epigenetic engineering. So it's not genetic engineering of the plant. It's more epigenetic because they're looking at trying to manipulate the RNAs, which are actually more powerful in determining gene expression, than the genes themselves.

And so what that means is it does open up a whole new layer of concern because the unintended effects of manipulating RNAs are probably an order of magnitude higher than what was going on at the more simplistic level of, "Oh, let's alter one protein coding gene here or there." So, ultimately, with the advent of RNA interfering technologies, and with the back door silent approvals through the EPA of this technology, the populations that will be exposed to these new foods, for example, and these new pesticides, will now have to contend with probably a far more dangerous set of risks than ever.

Patrick G.: And that's where it gets really interesting. You talk about epigenetic, it's what influences genes to turn on or turn off. Right? And there's no way to try to predict what might happen. And even if they said, "Oh, well we tested it for 90 days or something and we saw these types of effects or lack thereof ..." But that doesn't tell you what happens in a year, two years, ten years, vertically through generations. I mean, we're dealing with some very scary issues here that again, once the genie's out of the bottle, how do you put it back in?

So now you communicate, and very effectively, with the general population out there, through GreenMedInfo. And as you're writing these articles and letting people know to raise awareness around this issue, have you seen ... I guess, two questions here. Number one, has there been a surge in the public interest around it? And number two, what kind of comments are you getting?

Sayer Ji: Well, it's such an interesting question, because what I just revealed about Monsanto's paper has actually, I don't think, ever been reported on. And yet just during this interview, I checked to see whether the RNA interference technologies had come to market. And just this month, the EPA passed a pesticide that Monsanto and Dow created with RNA interference technology into mass market use. So are-

Patrick G.: Wow. So they're not slowing down, basically, as far as saying, "Oh, there seems to be some backward pressure." They're still getting new stuff and just recently the EPA said yes to it.

Sayer Ji: As far as I understand, on June 23rd it was reported that they had just quietly approved this new pesticide without any kind of oversight or reporting on the issue. I think the main problem as far as the public awareness question is that the science hasn't nearly

caught up with the question of are these things in any way safe. In fact, even the question of can you prove safety on a novelly altered organism, has still not been demonstrated, because you aren't going to have human safety trials the way you should because they're unethical.

So you use animal proxy studies which are notoriously ineffective between species differences alone, but then of course the idea of acceptable levels of harm should probably be gotten rid of right at the outset, and we should move again to the precautionary principle, where the weight of having to prove something safe goes on the manufacturer, not the exposed public, which is the situation we're in right now.

Patrick G.: It's sort of strange because when I really think about it, it's almost like the rights of a citizen ... well, they're innocent until proven guilty. Right? So if we're going to just assume they're innocent, put them out there, oh, then if we find out they're guilty of causing harm and killing human beings, we'll punish them at that point. But we really can't take that approach. These things have to be guilty unless they really can be substantiated as not harmful.

Sayer Ji: Absolutely. And what's going on is the new research on RNAs show that ... There was a study actually out of China that made sort of national and international headlines, which showed that consuming rice which contained these RNAs we're talking about, in human subjects, had enough of an impact on their physiology that it actually changed the LDL receptor in the liver. And so just consuming something as simple as rice now can have such a profound effect on your body that you can measure an aspect of physiology that is correlated obviously to cardiovascular health.

So it's no longer a question as to whether altering our food is going to directly alter our genome and our epigenome. It's just a matter of how much will that happen, and do we as a public believe that that's something that we want to be involved in? Because it's a mass experiment.

Patrick G.: So then, just, I guess on a fundamental level, it's known, then, you're saying, that if you alter the genome of a plant or food that you're eating, that that affects our own genetic expression. That there's a corollary between the two.

Sayer Ji: I think that if one were to try to prove it clinically, the outcomes could be measured in such a way that, yes, you could say there's sort of a one to one correlation. But the problem is is that we are so infinitely complex on a physiologic and molecular level that there's so many variables to control for that really, it's almost impossible. So when you don't know if it's even possible to test for the safety of a novel, new transgenic or epigenetically modified food, then we as a informed public should have a choice as to whether we want to participate in that experiment.

Patrick G.: So, but what we do know is that ... I think almost everybody would start with the premise the more natural, the better.

Sayer Ji: Yes.

Patrick G.: Right? And then from there, everybody has to start making up, well, there's benefits to going away from nature as far as crop yields ... which is probably, I'm seeing some strong refutation against the whole crop yield argument, and these other arguments ... But ultimately, these are the ramifications of this going wrong ... which it seems like it has, and data is sort of coming out saying that this is a bad idea ... the ramifications are astounding, like nothing I've ever seen before.

Sayer Ji: What's so insane about the concept that genetically modified organisms are going to help us, for example, survive the upcoming dramatic shifts in climate change, right ... like drought resistance or [luminen 00:34:24] resistant GMO plants ... is that what's happening with the present monoculturing model, which is very much like some type of really twisted religious model. Right? There's got to be one culture. It's really the basis for scientism and medical monotheism, is that there's one right way, there's one path, there's one way to implement it. That's what the word monoculture actually means. You take away the theoretically infinite number of varieties of microorganisms, plants, and animals, and you just kill everything but one plant that you genetically modified, Monsanto and Dow, to survive what is essentially chemical carpet bombing of that arable surface of the planet, and then that's what's going to stay there as our food? This one plant that's still just barely living, that's shot through with chemical toxicants while everything else has died around it.

We've just killed all those amazing variations of a particular species that could survive sudden changes like in the amount of water or

temperature changes. So in other words the basic justification for GMOs somehow conferring a benefit are destroyed by this model.

Patrick G.: In essence, you're saying that diversity is taken away.

Sayer Ji: Yes.

Patrick G.: And what happens if you get it wrong? You only got one. You have no options. It's like, where do you turn from there?

Sayer Ji: Exactly! That's exactly what I'm trying to say. That is what is going on. It's literally like B-movie or Death Star concept, is what are we doing? We have this amazing, miraculous planet with infinite diversity, and we're letting corporations kill everything on the surface of the planet ostensibly to save humanity? It's the most absurd narrative that you could ever try to put onto paper. And this is happening in real time all around us.

Patrick G.: It sounds like a bad science fiction novel. It really does.

Sayer Ji: It is! And people are tolerant of it, which is what's so amazing to me, is that we can allow this to happen in plain sight, participate in it every day, vote with our dollar, with our forks, to make this continue to happen, and then people like you or I are still occasionally considered outliers or exceptions or weirdos for even caring about the problem.

Patrick G.: I've been called a lot of pretty horrible things recently with some of the things that we've been talking about. And I know you've been in activism for quite some period of time now, and you've built a great audience through GreenMedInfo, people saying, "I do care. I want to know."

But the majority of people are so necessarily preoccupied with just getting through day to day, work and maintaining a home and raising kids and all that has to happen. And I guess there's this unfortunate dynamic where we have to say, "Well, we have to then trust the government and the agencies of the government that are charged with the protection of the citizenry." But then we see these unholy interactions between corporate interests, government ... and how legislative campaigns get funded, and all these varying things, and we begin to realize, wow. We have to take control of our own destiny and start to get informed. And this is what drives us to do these revealed programs.

Sayer Ji: Absolutely. I mean, that's been one of the bases of my activism regarding natural, evidence based medicine, is that when I really think about the standard of care, right? And health policy at large ... I mean, when you look at the CDC's vaccine schedule, you look again at the fact that you still can't have labeled GMOs, we're force fed, is that it's eminence based policy as well as the medical system. It's eminence based. It's like the emperor's not wearing any clothes, you go to the actual literature and you see that no, they're not safe, they're not effective, and you realize that evidence based medicine or evidence based policy doesn't even exist today.

So that's where the consumer, the ones like you and I and everyone else listening who have to make a choice with what to do with their children, with what to feed them ... We need to start really taking responsibility and realizing we're extremely powerful. And it does matter more on some level what you choose to purchase then who it is you're voting into office. Because as we know, big chemi, big agricultural companies, they fund both sides of the aisle. So you have Pepsi, you have Coke. You have Dem or Republicans. Republicrats. It's all the same thing on some basic level.

Not to say there aren't really good people in politics that are making good choices. But we need to look at ourselves as sort of the root of the change that we need to see in the world.

Patrick G.: There's no doubt that there are some good people who are legislatively involved that are trying to make a difference. But it's so difficult. I mean, what is there evidence of? There's evidence of billions and billions and billions of dollars of profit. And that can be funneled through lobbying into varying campaigns, and it's hard to say that, "Wow, I'm going to go against the money to try to get the truth out."

And it's not conspiracy. I mean, this is all very well documented. You can see how varying campaigns are funded, who's funding them and what they're interests are, etc. And it's a very tough thing. But I also fundamentally believe that there is still ... the people have the power and they just to have some awareness to be outraged to be able to make sweeping changes out there. But now the question is at what point can we get people to act before it's quote unquote too late with some of the damage that's being done?

Sayer Ji: Yeah. Absolutely. I think this is a good example of a way that people can get information that is really not compromised. Right?

So if you think about it, still today we externalize authority constantly. There's so many people you have this conversation with who are like, "Oh, well the FDA approved this as safe. What are you talking about?" And that's an example. You're outsourcing your authority to an external institution.

But the Food and Drug Administration just by de facto or observing their behavior, it's about food manufacturers, basically, with their policies and with their products, making the public sick, and then the drug manufacturers making profit off those symptoms of sickness. The FDA represents this vicious cycle of collusion. And so unfortunately when you think about it, people do really have a choice. But they're not aware that things are so compromised on so many levels.

A good example of how our food regulatory agencies have failed us on a global scale is that Jonathan Latham, who's an amazing Ph.D virologist who sort of broke ranks with the scientific clergy, if you will, and decided to start reporting though his own independent scientific news platform on studies that had been suppressed ... He discovered only a few years ago that the vast majority of approved foods and feed products that are genetically modified have a what they call surreptitious viral sequence in them from the cauliflower mosaic retrovirus. Now this plant virus contains sequences which when inserted into the foods that you eat or you give it to an animal and we eat that animal, can profoundly alter the phenotype of their cells and then our cells.

So the European Food Safety Authority acknowledged that this was the case and did a really superficial review, and said, "Well, there's no clear evidence that this is causing any harm," of course, because that's the way they do it. They leave everything to post marketing surveillance, they just put a unsafe substance or transgene into the environment and then claim it's not causing harm. But the real issue, of course, is that food safety is not really in any way validated, presently, by the government or any type of government associated organization.

Patrick G.: So it gets real interesting when people like Latham break ranks. Right? Because they've got careers that they're literally putting on the line because they see a certain truth. And these people, I think, are real heroes because they're basically saying, "Hey, my individual career path is less important than the truth and what this truth means to the world." And they're willing to go out there

and take those risks to say this. But then, of course, it's always met with violent opposition and people trying to marginalize it, etc.

And so as you've been watching this health issue emerge over time and reporting on it, and you see that these voices are out there also saying, "Hey, there's something really wrong here and here's the science behind it" ... So now I'm asking you a personal question.

Sayer Ji: Yeah.

Patrick G.: How does it feel, what goes on for you emotionally when you witness this stuff, you see how things are unfolding, you recognize that literally lives are at stake, generations are at stake, what's going to happen to them? And it's a fairly toxic source that's profiting from it at the expense of humanity. So is this what drives you? You, obviously, have really captured the essence of what's going on here. You've reported on it. You've committed your life and your energy to it. So what's it like being you every day?

Sayer Ji: Well, for me it went from being more of an intellectual necessity ... Certain people like yourself, when we know something to be true, we feel compelled to share it, especially if that information could mitigate or prevent suffering. So it's sort of like for as I think it is for you, we don't differentiate between our moral, spiritual path, and our work. And that's something I'm grateful for every day because I feel like I don't have to go to a nine to five. My nine to five is actually doing this work, trying to help others get the resources they need.

But it went from being that, and one could say at times even an academic obsession, to the fact that I have two young daughters. And because we live in a time ... And again, thank you for your work and Jeff Hayes, and all those others out there who are connecting the dots. You have this completely, I feel, manufactured compartmentalization between different types of activism. The non-GMO movement, the non-vaccine, or the right to be able to choose with vaccine movement ... And really they're the same issue. Right? Informed consent is being violated. There's no precautionary principle when it comes to toxicology risk assessments. The basic right to bodily self preservation, which is the most basic human right, as human as your right to have access to air to breathe, is being violated by both of these agendas.

In fact, some of the very companies we think are separate, like Monsanto is a subsidiary of Pharmacia, which is sort of like on paper still connected to Pfizer, this global pharmaceutical and vaccine manufacturer. And then Pfizer, of course, has genetically modified vaccines. So there's this overlap when you really look beneath the surface, where all of us are really kind of fighting for the same thing. And it does affect everyone we love on the planet. So you can't continue to think, "Oh, I'm just going to shop at Whole Foods and hermetically seal off my family on my shopping list from the problem," when we're getting sprayed overhead for Zika virus threats and we're having to breathe in glyphosate on a daily basis, and we're getting probably transgene insertion in gut bacteria all the time from foods that are polluting our food supply.

So we're having a lot of these concerns now that can no longer be abstractions for any of us. So I guess I don't really think about it often because me being responsible for my children's health forces me to do this work at the highest level possible to try to get it out to other parents and other people who ... We're all in the front lines, in other words, whether we like it or not.

Patrick G.: And it's very interesting that you bring it down to that and saying, "I've got two daughters." Right? [inaudible 00:47:08] I've got three kids. But you've got two daughters. And in that proclamation, it adds a sort of spiritual component to the work. Right? And a sense of responsibility. So now that everything that you know ... and you've obviously studied this issue as much as anybody in the world, and you've got two daughters, so now, with all the other parents that are out there ... because any parent would say, "Hey, of course I want to be healthy and I want to be healthy for my kids, but the main concern is how do I protect my children and my children's children?"

So what actions do you personally take? With now the knowledge, the context, everything you have, what do you personally do to try to safeguard the health and future of your children?

Sayer Ji: So for me, it is really about those basic decisions with food and preventable chemical exposures. As you know, not vaccinating, to me, is probably the greatest gift I can give to my children because I know enough about the topic now that I cannot justify a medically unnecessary intervention where you have healthy individuals, my children and others, being forced at this point in time or coerced to inject them with what are completely

experimental vaccines. There's never been a placebo controlled trial using [trusaline 00:48:33] for any vaccine in the CDC schedule. Doesn't take a rocket scientist to realize that that is pseudoscience and mass experimentation. And it violates every human right that I can think of for that to be in any way forced on anyone.

The same is true for GMOs. This is completely not safety tested. And even if I cared about that, because I don't, I do not want to want my children to be exposed to any petrochemical derivative or any kind of toxicant from the pesticide class that I can prevent. It's my choice and it's my responsibility as a parent. So I think that is a big part of it. I understand that I have a choice as a parent, but also responsibility to do the best I can for their health. And that means that everything that I learned academically and intellectually has direct bearing on those choices.

Patrick G.: Right. So then for trying to limit exposures, non-GMO certified foods, organic foods, etc, now, something you briefly mentioned earlier that I think a lot of people might not be paying much attention to, it's maybe you're saying, "Hey, I'm looking for these organic of non-GMO foods." But sometimes we're eating animals that have been fed this stuff. So can you talk about that a little bit?

Sayer Ji: Yeah. Thank you for bringing that up. So one of the more disturbing things that has come to my attention over the course of this type of research is that when you look at, for example, Horizon Organic or Organic Valley ... these are the brands that I very much appreciate what they're doing. Right? They're trying to bring a collective of farmers together to produce a type of food that's not ostensibly toxic. The thing about Monsanto, of course, is they have recombinant bovine growth hormone in their history. DDT. Saccharine. Agent Orange. This is the company that now we've given the right to take our food and alter it and poison it to improve it with?

So when you really look at what Organic Valley and Horizon are doing is that even their veterinary practices they're using vaccines, which those who have done the research know include non-organic ingredients and then may even contain genetically modified produced ingredients. So how can a company have USDA organic logo on it, be celebrated the world over as being so wholesome and good and alternative, yet still be so integrated into the

conventional and risky practices that the major conventional food manufacturers are using?

Patrick G.: So you really have to kind of look at the food chain, if you will, saying that it's not only just what you're buying as the end product, but what is that animal being fed? What is that animal being injected with? Because all of that, as you were describing earlier ... Our genetic makeup can be altered, and not in a good way, from eating certain things. So now we look at animals, so if theirs has been altered and we're eating them, then we also have that. It moves up the line.

Sayer Ji: This is very profound. Yes. Because with the discovery of micro RNAs ... which are produced by every cell in every animal or plant's body that we know of ... These RNAs are packaged in what are known as microvesicles which are approximately around the size range of viruses, between maybe 60 to 300 nanometers. They're like little particles, right? You think of influenza. Influenza is actually packaged in host nanoparticles that are basically ... They're called basically exosomes when they're secreted by our body. And so anyways the RNAs are communicated to other animals. When we eat an animal, we get that RNA. So if you drink the milk of a cow, it's full of micro RNAs and these microsomes that we consume that then can alter our DNA.

So it isn't always a bad thing. In fact, some of the research shows that if you consume grapefruit or orange it contains exosomes that have beneficial nucleic acids that will actually cause antioxidant activity. So there's such an interpenetration in the biosphere between individuals in a species and then even transkingdom, communication occurs through these RNAs packaged in exosomes. And these survive digestion. So it's not a matter of "Oh, yeah, they're in there and then we'll just break them down. They won't get to our cells." So there's a co-evolutionary aspect to it.

But when we alter things or we eat things that are not biologically appropriate ... Say we consume cow's milk. A lot of people argue, "Well, that's not ideal." We were meant to drink human breast milk. Well, then, the cow milk drinkers will have altered DNA expression. So.

Patrick G.: So I guess the term that comes to mind ... I mean, that's at the foundation of it all, is interdependence.

Sayer Ji: Yes.

Patrick G.: Right? We don't live like islands. We don't live in an isolated vacuum shielded from all this. There's interdependence among everything. And if you start to disrupt that, you're asking for trouble.

Sayer Ji: Absolutely. In fact, you pull one little strand in the web and all the strands in the web are changed. That's exactly what it is. And so what's happening is biotech is still operating on classical, completely outdated principles. Like the basic dogma of molecular biology is that the genes are hermetically sealed in a nucleus all from all other organisms, and the genes can go in one direction to go produce a protein. So it goes gene, RNA, protein. And you can't go the other way. But then, of course, you have the discovery ... people like Barbara McClintock's jumping gene phenomena where you see that genes can jump horizontally, say between viruses and bacteria. But now with RNA we know that the information containing nucleic acids like RNAs can jump directly, even through just digesting something. So the interpenetration, the permeability, the fact that we have a Gaia-like interconnectivity in the biotic layer of this planet ... That discovery makes all of the present justifications for biotechnology interventions like genetic modification, RNA interference technology, it makes that so much more dangerous and affect so many more things than anyone could have ever imagined.

So the science has now basically de-validated all of the justification in the scientific literature for all the GMO foods and chemicals being used that are presently considered safe by the FDA and other regulatory agencies.

Patrick G.: It's interesting, because when you're looking at, let's say the non-organic or non-biological sciences, people would say, "Well, we're so impressive there. If we can send a man to the moon and bring him safely back to Earth, then science can solve all these other problems." But I think they have to separate their mind. There's a very big difference between getting a physical object from point A to point B then there is to say that we are dealing with biological sciences, complex interactions, balance that has emerged over millennia to get to a certain point. And then just to say that we can arrogantly disrupt that and think that we can know what the effects of that are, it's really two different worlds.

And I think that's where people have been either intoxicated or deceived around the whole worship of science because of certain achievements, that now they kind of transfer that credibility in areas where it doesn't belong.

Sayer Ji: Absolutely. Because the difference is that in the biological sciences, we can no longer separate out our bodies from the biosphere as a whole. And that discovery indicates that anything we do out there is directly going to affect us in here and it will probably carry on into multiple generations if not into perpetuity. So it's put the responsibility really back on us in a way that previously we could have said, "Oh, well, the only thing we have to worry about is glacial changes in the primary nucleotide sequences of a few thousand protein coding genes, and that takes hundreds of thousands of years for one gene to be altered."

Now we know in real time, I could be drinking a glass of orange juice, and within a matter of minutes the RNAs within the little microvesicles would go into my body and start altering dramatically the expression of my DNA. Now if this contained glyphosate, that would probably so dramatically alter the expression of my DNA that we could probably even calculate how it would reduce my life span by a few weeks or months, just consuming a little bit of glyphosate. It's so interconnected and so real time now that we can't use the age old fatalistic justifications anymore for our irresponsible behavior.

Patrick G.: You happened to briefly mention to me before we started, something about ... which I'd never heard before ... GMO insulin. Talk to me about that.

Sayer Ji: So what happened was that in 78, the first GMO insulin was approved on the market for human use. And what they did at the time, they used yeast and they genetically alter it to produce an insulin like molecule. It was not bioidentical. But they used the branding term Humulin so that people would think, "Oh, well it's like human insulin." And so unfortunately there's three amino acid substitutions in that insulin molecule. Means that on a primary structure level, it's not human insulin. It can't function the same way. Does it have some of the same insulin-like properties? Yes. But the difference is profound because on the secondary level of a protein sort of structure is a folding structure that has a whole nother layer of information. And structure and function are two sides of the same coin. So you alter the folding structure, then it's

going to function differently. And then there's the tertiary level and the quaternary level.

So this is not the same thing as the insulin that the beta cells in the pancreas produce. And in Type I diabetes, there's an autoimmune process where those cells get destroyed and that's why you have lower insulin levels. Preceding the advent of this sort of marketed life saving insulin was pork-derived insulin, which is far closer to human insulin and even contained theoretically some of the other beneficial molecules, because insulin doesn't just exist in isolation. It comes packaged in pro-insulin form with an A and a B chain, and then a C-bridge or C-peptide that keeps them together. So when that's sliced apart, then you get two insulin molecules, you get C-peptide.

C-peptide is extremely important, too, has a number of benefits. It prevents things like neuropathy and has real value. So you don't have that in a GMO form. So pork-derived insulin isn't patentable. Yeah, there's some limitations to how much you can manufacture. But it was the closest possible thing that you could give someone who couldn't produce their own without, theoretically, a lot of the downstream adverse effects.

Well, what are those adverse effects? So what happened was several years ago, a Japanese study came out that looked at what happened when you gave this insulin ... which is now mostly produced from genetically modified E. Coli ... to those with Type II diabetes, which is really bad practice anyway, as you know as a health advocate. These are insulin resistant diabetic cases. So what are you going to do? Just throw more insulin at the receptors that are resisting it? No. Let's change diet. Let's detoxify. Let's do some lifestyle interventions like exercise. Regardless, what that study found was that within a matter of on average 7.7 months, the participants had developed Type I diabetes on top of the Type II diabetes. And when they looked at their blood, they found increases in auto antibodies to insulin as well as decreases in C-peptide, which indicates that their beta cells were further being destroyed. In one of the patients, they developed Type I diabetes within one month of giving the insulin.

Now, this isn't a surprise to those who have been tracking the literature on insulin therapy for Type II diabetics. Now, for over a decade, there's a doubling of cardiovascular events like heart attack in those who take insulin who have Type II diabetes. And,

again, it's very common sense for people not to give Type II diabetics when the problem isn't that they're not producing enough, it's not they are not responding effectively to the insulin they produce.

So what this GMO insulin study essentially did was show that the very medicine that they're trying to really force on those with insulin resistant diabetes is going to cause double diabetes. Now they have Type II, Type I, and this is why they are dealing with a epidemic of insulin therapy induced cardiotoxicity, is that the insulin is actually worse than the condition they're treating those Type II diabetics for.

Now, people with Type I diabetes are always saying, "Well, what are you saying? Don't take insulin? We should just die? This is dangerous information!" That's not what I'm saying. I'm saying that don't take genetically modified insulin and say that that's better than what you can get from pig source, because pork organs and glandulars are known to be about as bioidentical to the human physiology as you can get from another species. That's always been well-known. But they aren't patented, they're not controllable, and that's why you can't even get them in the United States anymore. You used to be able to at least have a choice, but as with the overall GMO debate, they take the choice away from the consumer so we're forced to use it.

Patrick G.: So this is very interesting in the sense of, again, how technology they think is going to be a benefit, it turns out it's not. But it kind of leads back to something you said earlier as far as we look at the pharmaceutical industry and you'd say, "Well, that's completely different from agriculture and this whole GMO issue." But ultimately, and kind of it sparked my mind a little bit when you said this earlier because it's so true if you follow the trail, saying that if you can imagine that the symptoms and conditions that these GMOs cause when you come into your body, rather than saying, "Well, maybe we need to change that and get to organic, non-GMO food, etc, to help alleviate that ..." because it would be unwitting ... drinking milk, suddenly I've got a lot of congestion, I've got this, I've got that issue, or it's my kid ... when they see, "No, you're going to a doctor," doctor does an evaluation, there's these varying symptoms here. Now we're going to go to medications that are going to be given to deal with these symptoms, not the underlying problem but the symptoms of the

problem, try to change the chemistry, again, in the body with these drugs.

As Eli Lilly was quoted some time ago, the pharmaceutical company, I'll never forget the quote ... "A drug without a side effect is not a drug at all." So there's no such thing as a drug that doesn't have adverse effects, it's just a matter of the scale and complexity of them. Right?

So now you start to see that it's this degenerating cycle, I mean, that's very, very disturbing. Saying we're going to come in where food's going to make us feel wrong, create symptoms ... the body always is going to struggle to try to express the best health it can, but when you're taking all these toxins, whether it's glyphosate, whether it's the genetically modified foods and what it's making my body do ... and then next thing you know you're getting a bunch of drugs put into the body because of these symptoms. And the whole thing starts to degenerate and spiral out of control.

And the thing that I would say to people, I'd say, "My God," listening to you, obviously extremely knowledgeable and articulate on so many details surrounding this, and now go to the lay public who's saying, "I can follow the logic. Yeah, this makes no sense at all! But it all seems so overwhelming." But in the end, what's the solution? It's to get back to nature, get back to how nature intended. And the closer you get to that, the more you're going to eliminate problems in your life.

Sayer Ji: Thank you. Yes. That's it. Because rallying cry for many of us is that natural is better, and yet it's been characterized as a synonym for quackery just to say such a thing. Yet, what is truer than the fact that for literally billions of years there has been a history to why as a species we survived through countless eons. It has to do with what we didn't or did put into our mouth in most circumstances.

Now that we know that food is information, it has this nutrigenomic capability to target on a granular, molecular level, very specific processes in a way that no man-made chemical or drug or biological will ever even approximate, it's almost like we're starting to understand that food is sacred and it's high technology. It's not just this woo concept that natural's better. It's actually looking at the fact that alternative medicine is conventional, traditional medicine and that the alternative is using patented, synthetic chemicals which are in existence only because they are

proprietary, patentable, not because they confer any benefit outside being able to control it as a market commodity, that's when people see the light that this is science, that we are actually supported now with knowing that, for example, exosomes within the food we consume directly are able to orchestrate the expression of the DNA in our body. That's high science. That's validated on a new level.

So I think that people are starting to come to an awareness that natural is better is one of the most scientifically validated statements that could possibly be made by any person this planet.

Patrick G.: So it's interesting because you say food is information, and if you were to run an analogy, say that you wouldn't take corrupted information and put it into your computer because what would happen. Right? So this food is basically corrupted information. GMO food. Poison food. It's corrupted, and we're taking corrupted information and putting it into our bodies. How would you expect your computer to respond? It's going to crash. What do you think your body's going to do?

Sayer Ji: That is so brilliant. Yes. Because the problem that food science and policy around GMO foodstuff has focused on is that food is just a source of energy for the body machine, like fuel, or building blocks. Proteins and carbohydrates and lipids and then some micronutrients and minerals, and that's what it's comprised of. That is the most reductionistic, classical, sort of Newtonian-, Descartes-based view. It's really that food is highly intelligent. It's shot through with packets of gene regulatory information without which the genome and epigenome of our species would fall apart overnight!

So now suddenly what it is you eat or don't eat becomes the most important thing that you can do to take control of your health destiny. And if we put that control into the hands of these multinational corporations whose fiduciary responsibility is to their shareholders to make a profit, what are we doing? That's like giving up your health freedom and your health destiny to the mob!

Patrick G.: Yeah. And now [inaudible 01:08:50] health freedom and health destiny, but your full experience of life and the well being of your family. So the implications go from the science to the moral aspects of it. And I think that the good news is this can be an intricate and complex the board. However, it's not that

complicated to take action in your life to do something about it. And it just literally is get back to more natural approaches toward living.

Sayer Ji: Absolutely. Exactly. It all boils back down to is it that you're putting on your body or putting in your mouth or breathing in, is that something that is natural? Or is it not? It's not difficult. And if that sounds again like quackery or magical thinking, what we're trying to reveal to people that this is the most cutting edge, validated science that exists today.

And it's this new biology which again has been in the literature, and scientists have been revealing these phenomena now for decades. But there's about a 20 year gap between the science and then quote clinical application or when you're actually going to hear it from a doctor reporting on CNN. This is going to take decades. But the research is there. The information is available now directly to the public through these sorts of instruments and online. So in the age of the internet, they say that there's no excuses anymore. The information is there.

Patrick G.: The science around all this is fascinating. Now let's go to the consumer and say, "What are the practical steps?" What are the actual, practical steps a consumer can now do armed with this information?

Sayer Ji: The most important thing, I think, anyone can do is to just commit to eating non-GMO. The reason I say that is all the obscure academic discussion we've had around this topic suddenly becomes real, because if you're trying to do something that simple in a world where they have manufactured an absence of any indication of whether it's GMO or not, you start realizing what's going on. You go to a restaurant, you say, "Hey, this is GMO containing?" And they look at you like you have two heads. And then you're like, "I have to eat! My kid's hungry." And suddenly it becomes something that makes you an activist and makes you an educator.

So then everyone starts to have a grassroots, bottom up effect in a way that all the talking and even posting on Facebook and ... these are all secondary. It's important, but it's not as important as you as a mom or dad with your children making these good decisions when you're preparing your lunch menu. You really have to think. What is assuredly not containing surreptitious GMO ingredients? Or learn about how Cheerios gets its oats from a manufacturer that

ostensibly and very vocally uses glyphosate in their grains, even though there's no reason to. It's not Round Up ready oats. They do it again to hasten the process of producing it.

So when you start realizing that there are these issues, then you start making a difference, and then before you know it you've effected as much change as you or I in doing this documentary.

Patrick G.: And incidentally, there's precedence for this because ten years ago I wasn't seeing gluten free on a bunch of menus. Right? Now, you can't escape gluten free. And I think it was just consumer demand walking in like you said, saying, "Do you have gluten free bread? Do you have gluten free anything that I'm looking for?" Pasta on the menu. Pizza crust. And I can remember the first couple of times just seeing it in the grocery store because it was like I didn't want to feed gluten to my kids, especially GMO gluten. And next thing you know it hit a tipping point and it was everywhere. That can happen with GMO, can't it?

Sayer Ji: Absolutely. And also, when you think about what I'm asking, it sounds almost like not a high expectation. And it really is far higher, because again, I'd rather people say I'm just going to eat organic. But then when you even go into the realm of organics, you realize that there's a dark side there, too. But just focusing on non-GMO will get you thinking about the larger issues. Where did the food come from? Let's say you buy an organic carrot. Takes, what? 200 calories of fossil fuel energy to deliver it from the West Coast to the East Coast for one calorie of carrot energy? You start realizing even the energy equation is ultimately still poisoning and killing the planet that my kids are going to want to live in in the future.

So you start thinking about things differently.

Patrick G.: So buying local would be another recommendation, then?

Sayer Ji: Yes. And especially if you can develop a relationship with the farmer or the CSA, and then you can sort of say, "Hey, what is it that you're actually growing this stuff in?"

We're in Florida, so a lot of the USDA organic local farmers are getting their manure from people like Purdue, and that's completely legal. So I don't want to overwhelm people. But the truths is the truth. And so if we really want to get into this, being

an activist means it's as simple as "I'm not going to feed my family GMOs," and then it just goes from there. And it's why people like Zen Honeycutt and Moms Across America and other grass roots organizations have done so much work under the scenes, because it's really just the moms and the dads and even the kids now are waking up.

My kids are constantly asking me, "Is this GMO?" And that's because they went to the March Against Monsanto process in Fort Myers with me. We had our little wagon and there was all these great people there all trying to stand up. It really means something to the next generation, and that's because of the good work that people are doing.

I will say the second most important thing that people can do today is just sharing the information. That's all I did! I had GreenMedInfo up and running for years. I'd spent literally hundreds of hours in my garage indexing research, the harms of GMOs and glyphosate, and it was like crickets chirping globally. The moment I took a study and reported on it, posted it to Facebook ... and this was back in the day where there was a little bit more activity ... that's what really set the awareness just scaling, is that today anybody can have as much relevance online as ... The World Health Organization and FDA, they have a website. That's great. You have a website. I have a website. I get a million visitors sometimes each month. It's because people are saying that information resonates more with me. I think that's less biased. So guess what? I'm going to give you my attention and I'm going to go ahead and make my action plan off that information.

So we all have that ability in this new ecosystem of internet technology.

Patrick G.: Well, on behalf of the millions of people that I know you've helped and have changed their lives through your activism and through GreenMedInfo, and your passion to get this out into the world, I just want to say thank you. And I also want to say thank you for spending time here today with us.

Sayer Ji: Thank you. It was a great honor, Patrick.

Patrick G.: My thanks so much for taking time today and sitting and having this conversation, which I've been looking forward to for a couple of week since we booked it. And just for context for everybody who's

watching, we're kind of in this remote location that we're not going to disclose. But it's a studio so we're kind of behind the scenes in your studio to have this particular production happen.

So can you give us a quick background, bio sketch on you?

Mike Adams: Sure thing. Known as Mike Adams, the Health Ranger. That's my nickname. And I'm known as a whistleblower. I run a lab. I founded a lab called CWC Labs. And it's internationally accredited, now. We're ... published science papers out of that lab. So we do a lot of analytical science on food, environmental samples, and so on. But I also ... I'm really well known for calling out the pharmaceutical industry or the GMO industry or the pesticide industry or highlighting the corruption of the regulators and their involvement with those industries, such as EPA, USDA, or FDA.

So I am really loved by activists and hated by the status quo because I am forcing them to confront the lies and the false narratives that they've been pushing on people for decades that have been poisoning our world. So that's a pretty good synopsis of who I am.

Patrick G.: Yeah. I'm going to ask you in a second how you got to that. But to kind of put the exclamation point on the hated by certain factions out there, you just had a huge attack on your servers today. What happened?

Mike Adams: Yeah. Yeah. There was a massive DDoS attack on us. Up to 250,000 connections per second, which is a massive, coordinated attack. It's not a small player. There was no request for a ransom, so this was someone who was trying to silence us, not to try to make money off of us. We already overcame the attack, but they did hurt our traffic for about 10 to 12 hours, and it's probably one of many attacks yet to come.

I think I know who's behind it but we'll save that for a different discussion.

Patrick G.: Right. What got you into all this activism. How did you get there?

Mike Adams: Well, I have a very low tolerance for lies and corruption. I've been a truth teller my whole life in different areas, but over the years as I gained more technical knowledge, and started my lab and did a lot of the analytical science, I began to see just how

much we the people are being lied to by the establishment. Whether it's the vaccine industry which says there's no mercury in flu shots, but there is. Or the GMO industry which says pesticides don't cause cancer, but they do. Or just economy areas. We're lied to about the unemployment rate, for example.

There are many institutionalized lies throughout our system, our status quo. And I cannot stand by and say nothing. I really can't. It's just it's part of my soul to stand up and say the emperor has no clothes, even if all of society says, "Oh, no, those are beautiful flowing robes with golded thread." I'm like, "No! The guy's naked!" It's just who I am. I mean, it's really part of my soul. So I have had both the blessing and the curse in this society, which is rooted in lies, to be a what many people call a revolutionary truth teller. And I think it was Orwell who said telling the truth in a time of great deceit is in itself a revolutionary act. And I get that. I understand now where he was coming from.

But not everybody's ready for the truth. That's the thing. Everybody's on a different stage of their own personal evolution or spiritual awakening. Some people are ready for it. And humanity, I think, is waking up more and more. But there are still factions of society, or institutions, or even in academy and science, that have no ability to accept evidence that doesn't fit their false narrative. And so I see myself as really someone who is part of the scientific method, which is to question the status quo. Let's find out what's false about what used to be believed. And let's bring in new truths that move humanity forward. So that's how I see my role in this.

Patrick G.: You set up a lab that can test for things like glyphosate or other such things ... or I think you may be working on that test now, but there's other ... where people are marketing things out there, and you're saying, "Is what's being marketed or promulgated accurate or not?" And was it that same drive just to have the truth be known that caused you to want to set up a lab?

Mike Adams: Well, yeah. Absolutely. I wanted to understand what's really in the food, supplements, superfoods, off the shelf groceries. And really, be careful what you ask for. If you run a lab and you start to run mass spec equipment as we're running, and liquid chromatography combined with mass spec and time of flight, different things, you will start to see some very disturbing contaminants, let's say, that are in the food.

Right now, I'm looking at a very popular class of nutritional supplements. A big category. Over $100 million a year in sales in this category. And I'm finding that it's heavily contaminated with antibiotics. No one has talked about it.

But at the same time I've looked at organic products from China, and I found they were contaminated with mercury and lead. Organic rice protein. And I blew the whistle on that several years ago, and the industry changed its ways and they cleaned up, and that ingredient was abandoned by most companies. So now it's a cleaner protein, vegan plant based protein because of the work that we did.

And we also take a look at pesticides and herbicides such as glyphosate, which is a very difficult molecule to analyze, by the way.

Patrick G.: Interesting. And so now we ... Go into GMOs relative to all this and on your site, which is naturalnews.com, phenomenal information there, and I sort of looked up GMOs there before our interview just to see what kind of stuff you're putting out ... What a great, amazing thread of content that you have that corroborates everything that we've seen thus far throughout this documentary.

So what is your view on GMOs now? What do you think the impact is and what are the lies that you see there that meet ...

Mike Adams: Wow. Okay. Where to begin? So first of all, let's do a thought experiment, and let's assume that the genetic engineering of plants doesn't make those plants dangerous to consume. Let's just give the industry that for a minute, there. Even then, the herbicide chemicals that are used along with GMO crops, and often now with non-GMO crops ... and I'm talking about glyphosate in particular, but there are others ... these are extremely toxic and very, very dangerous. And as a scientist, I can tell you that if you look at the molecule of glyphosate, guess what you find? It's very similar to VX nerve gas, which is the most toxic chemical that's ever been developed by modern man.

If you look inside the glyphosate molecule, you find phosphoric acid, which of course is based on the phosphorus element. And around the phosphoric acid you have different functional groups. I mean, if you actually just lay out the molecule as map, you can go on to chemspider.com and you can see it. VX nerve gas, the

analytical methods for finding it are very similar to what you do for glyphosate. And glyphosate is like nerve gas for plants. So it functions in a similar way. Why does it kill plants so effectively? Why do farmers love it when they don't know the truth about it? Because you spray it and that plant starts dying immediately. And it's dead in six hours and it's brown in twelve hours. It's gone.

Well, the problem is that these chemicals don't discriminate. They go to work on anything they touch that's rooted in biology. So if you're eating GMOs, you're actually getting what are called glyphosate resistant plants that can take up the glyphosate and it can incorporate them into their plant structures and the plant is engineered to be resistant to it, but you aren't. So you're eating, essentially, a plant-based nerve gas agent that is labeled safe for human consumption by the EPA, which leaked documents have shown works in collusion with the pesticide industry to downplay the very real dangers of these molecules, and really even to try to demonize anyone who blows the whistle on this horrific crime against nature and humanity.

Patrick G.: So Monsanto makes glyphosate, which is the ... Round Up is the commercial name for it.

Mike Adams: Well, Monsanto makes Round Up, which uses glyphosate, which has been off patent for quite some time. So glyphosate is used by many companies in their own brand name products.

Patrick G.: And have you seen or have you found and disclosed any collusion between the EPA or the government and Monsanto?

Mike Adams: Absolutely. Yeah.

Patrick G.: So what have you seen? What kind of stuff?

Mike Adams: Well, that came out recently, the New York Times. They did a piece on that which showed that ... This is all due to a court case in California. And in the discovery process for this court case, which I think aggregates about 1100 claims of glyphosate exposure causing Non-Hodgkin's lymphoma ... and Monsanto could be on the hook for billions of dollars in damages, by the way ... but in the discovery process, these emails came out and they showed that Monsanto waged the campaign in the scientific community to suppress the studies and get them retracted from science journals,

and that Monsanto was paying the editor of a major science journal $400 per hour at the same time that he retracted the study.

So we're talking about straight up bribery, collusion, criminal fraud. And this is beyond just science fraud. This is criminal fraud. That was the New York Times. Now, if you go over to GMWatch, or you go to U.S. Right to Know, you're going to get a lot more evidence of what's really going on. It goes deep.

Patrick G.: And what's interesting here is that knowing ... and there's a pattern of this kind of corruption in other areas, but in this particular subject, the fact that they know that this is causing these types of illnesses and the fact that rather than saying, "Hey, there's something really wrong here, we need to correct, we need to do whatever," they try to cover it up ... Is there a lower depth of evil than that in the world? Where people knowingly are herding masses of human beings strictly based on corporate profit?

Mike Adams: You call it a lower depth of evil, and I agree. But it's also a higher template of evil corporate profit that was perfected by Big Tobacco. So this is a template from Big Tobacco, and in fact a lot of the GMO, what we call the dark hat, black hat, operators, the evil doers ... they used to work for Big Tobacco. And they're job with Big Tobacco was to deny the science that showed inhaling cigarettes linked to heart disease and cancer, and to create confusion and to infiltrate and corrupt the regulators at the time.

Why did the American Medical Association essentially endorse cigarettes for decades, and run full page advertisements for Camel cigarettes in the Journal of the American Medical Association? Why did they do that? Because of people like the same black hat operators that are working for Monsanto and other companies today. Because their job is to sow doubt, confusion, to discredit any person who speaks out. To corrupt the science journals and take over all of quote science so that it proves that their poisons are safe.

And of course, Big Tobacco eventually was exposed as a massive quack science of falsehood. And that's what's going to happen with Monsanto. It's starting to happen now because of these lawsuits. More will come.

Patrick G.: Isn't it an amazing irony that their pushback to conceal the truth is accusing others of being unscientific or crackpots, what have you,

when the reality is that they're the ones who are practicing I guess a fictitious form of science? So now they will look at people like you and say, "Naw, he's just a crazy crackpot. You can't pay attention to him, etc, and others that are trying to blow the whistle here." But eventually, like you say with tobacco, it eventually comes out. The truth eventually comes out. But what were the lives and the costs in the process?

Mike Adams: Yeah. Well, in this case, glyphosate may already have killed millions of people. That truth will eventually come out. And it will probably continue to kill millions every decade until it is banned. And Europe is looking at really, really cracking down on it. The European limits for glyphosate in foods is very low compared to the EPA, USDA, or any regulators in the United States. So in the U.S. they set the limits so high that when crops are grown overseas that are heavily contaminated with this cancer causing chemical, the European Union won't let them in. So they get dumped on the United States. The U.S. becomes the poison chemical dumping ground for foods that are too dangerous to be consumed in Europe. Many people don't realize that.

Patrick G.: No. I didn't. And it's startling.

Mike Adams: Well, you look at even the heavy metals limits. In the United States, there is no official limit of how much mercury can be in food. Did you know that?

Patrick G.: No.

Mike Adams: There's no limit. And we know this quite exhaustively in terms of how much research we've done into it. But in the European Union, and even in Canada, and in Japan, and in Australia, there are very strict limits of heavy metals. Not in the United States.

Patrick G.: Wow. So disturbing to say the least. And then if you look at how much glyphosate's going into the environment on an annual basis, and the issue isn't just the plant itself anymore. Right? And the fact that we eat them. But then, of course, what's going on to the soil? And how is that affecting? And what about winds blowing and the effect of spreading this stuff around? The seeds from Monsanto, obviously the GMO seeds, etc. so there seems to be this compounding effect.

Have you ever done any type of a calculation to try to figure out the scale of the impact here?

Mike Adams: Well, there are millions of tons of glyphosate spread on farms in North America right now. Millions of tons per year. Now this molecule persists. It is a very tiny molecule. The ionization mass, M + H, I think is 169 point something. So it's very small on the molecular scale. What it means is that this molecule permeates. It goes through tissues. It moves through water. It goes through cell walls. This is why people who drink beer made from barley contaminated with glyphosate end up having glyphosate detected in their urine.

Why is that? Why wasn't the glyphosate destroyed in their metabolism? Because it's a very small molecule and it's resistant to being destroyed and it permeates everything. So the fact that there's so much being dumped into the ecosystem means that this will permeate, that this will be a scourge on our global food production capabilities for perhaps generations. The soil microbes, which are crucial for nutrient uptake by plants ... the plant roots can't function without microbes ... the microbes are utterly obliterated by glyphosate.

At the same time, glyphosate is a mineral chelator. So it's moving certain minerals from places where they need to be and shuttling them into places where they shouldn't be. So it's causing nutrient deficiency and metals toxicity simultaneously because of the way it functions. It's a metals chelator. So it's a transporter. It has every negative property that you can imagine for a killer molecule.

Believe me, if Monsanto weren't behind this right now, any rational, reasonable scientist would say that this is a weapon of mass destruction. This is the kind of molecule that would typically be used by a terrorist organization to cause widespread infertility or death or cancer to a company. I mean, when you say, "What is ISIS going to do to America?" Well, Monsanto's already done it

Patrick G.: That's a strong statement. But when you look at the scale of what the impact is, it is massive. I mean, these conversation that we've been having throughout our docuseries have been startling to me. I thought I understood this, and then I start getting more detail, and I was like, "Wow, this rabbit hole really goes down and there's a lot more here than was originally understood."

Mike Adams: Right. Well, think about the definition of what is a weapon of mass destruction? Well, glyphosate really is a weapon of mass destruction if you think about what does that definition entail? It usually means a molecule or a radioactive isotope that kills living organisms indiscriminately. That's a perfect definition of glyphosate. It doesn't matter what it touches. It kills it can kill insects, it can kill weeds, which is what it's developed for, and over time with enough saturation, it can also kill people. And so this is now inundating our environment.

And what's especially evil about this is that Monsanto is now claiming that if governments don't approve more of their poisons, that hundreds of thousands of people will die around the world from starvation. So they are now claiming that if we don't kill more people with their chemicals, that then other people will die from a lack of food. It's the really insidious catch-22 situation that they're trying to create in the quack science community, which is mainstream science at this point.

They are destroying the credibility of science, by the way, in doing this.

Patrick G.: Yeah. And there's a lot to refute, saying that crop yields increase, etc. Do we have a yield problem or do we have a distribution problem?

Mike Adams: Right.

Patrick G.: That's really the question.

Mike Adams: We have plenty of food.

Patrick G.: Yeah.

Mike Adams: Right. And in fact, what? 160,000 or 190,000 farmers in India, I think, committed suicide because of crop failures following the application of glyphosate and GMO seeds on their crops. So we already know that GMO crops often fail. Sometimes not in the first year. But in the third or fourth or fifth year after glyphosate has wiped out the microbes and the plants no longer have the very delicate infrastructure for viability ... that we have mass death of the crops and then farmers commit suicide, sometimes by drinking glyphosate.

Patrick G.: Wow. We talk about deaths that are caused, but sometimes it's not death. It's long term chronic illnesses. Seemingly mysterious illnesses that people are saying, "Geez, I've had these issues, they seem to be vague, I don't get a good diagnosis. Then I get on all these medications and they create other problems." So it's not even like it's just, "Oh, people just suddenly drop dead." But there's this sort of chronicity of illness around it.

Mike Adams: It is. Absolutely. Well, and remember that the pharmaceutical industry profits from ongoing sickness or disease maintenance. So a cancer patient ... let's say that they contract cancer from glyphosate exposure. So that enriched Monsanto or the biotech industry. Then they get cancer, so now they're enriching the cancer industry and the pharmaceutical industry. And it's a money making system that preys upon human suffering and disease and death, ultimately.

I mean, it's almost like a scene out of the Matrix, where you are nothing more than a means of economic production for these chemical companies that have no value for human life. They have no ethics, no morality. They have no intention to reduce human suffering. And frankly, they have no intention to feed the world or heal the world or anything of that kind. Those are all cover stories. All they want to do is sell more chemicals, pocket more money, and what happens to you and the world be damned to them. They are destroyers of life. And yet they are powerful and profitable and they run Washington, D.C.

Patrick G.: Very chilling. Now, earlier you said let's put this aside, maybe we'll take it from the aside and bring it to the front and center. Let's talk about GMOs in and of themselves, not just what's sprayed on them. What's your view on that?

Mike Adams: Well, a lot of dangers come with genetic engineering. Number one, most of these crops are now open pollinated. And we have something in science known as Murphy's Law or the law of unintended consequences. Well, with most accidents ... let's say an oil spill in the Gulf of Mexico. The oil spill goes away over time because ocean microbes actually eat the oil. Even if you did nothing, it would go away.

But with GMOs, you have a self-replicating pollutant. Genetic pollution. Now you have plants that can cross-contaminate other plants that have existed and have helped sustain humanity for

thousands or even tens of thousands of years, such as corn. But now, corn could be contaminated with an unintended variation of a genetically engineered inserted into the gene code that never belonged in the plant world. They insert animal genes into food crops. What are the long term effects of that? We don't know. Now you have a Pandora's Box. Even pharmaceuticals ... remember the thalidomide catastrophe?

Patrick G.: Yes.

Mike Adams: Babies born without arms or legs because doctors told pregnant women, "This is a safe drug. Take it." And now we're being told, "These are safe crops. Eat all you want. Grow it everywhere. Let the wind spread those genes far and wide. It's going to be fine, they say."

Patrick G.: I'd say the only difference is the wind doesn't blow and spread thalidomide.

Mike Adams: Right. Right.

Patrick G.: This isn't ... yeah.

Mike Adams: Again, this is a self-replicating weapon. Again, if you were a terrorist organization and you wanted to cause mass destruction, this would be the perfect way to do it, because you could engineer into plants ... Well, actually, they're doing this now. We're going to talk about RNA fragments and how those are being used to cause infertility in insects. But these traits can cross ... They can infest other crops in ways that the scientists did not anticipate. They could have physiological effects that were not anticipated. They can be engineered with intended, targeted effects to a specific organism such as a beetle, but then they can end up having unknown effects on organisms up the food chain such as you and me, humans.

You see, when science is arrogant, it becomes very, very dangerous. Very dangerous. That is where we're at right now. GMOs could cause widespread crop failure if something goes wrong. They could cause corn crops to cause massive infertility in humans. With the RNA fragment technology that's now being used, corn crops could be engineered and grown all across the country that would cause widespread infertility and depopulation of the human race. That technology exists now. It's mainstream science.

Patrick G.: So when you're talking about this, is this something that's approved with these RNA fragments that's being released? Or is it something proposed?

Mike Adams: Well, it's happening in a lab right now. And the USDA has a history of approving everything that Monsanto wants. There is no real scientific scrutiny being done at the USDA or the EPA. I mean, let's be honest here. The EPA is a corrupt, quack science organization. Even its own scientists will tell you off the record ... and I know many of them because I run in lab circles, I have posters at lab science events and so on, and I talk to EPA scientists. They are so frustrated. And I've interviewed former EPA scientists who are blowing the whistle because they got shot down when they said, "Oh, this could be dangerous."

You know the EPA approved the application of human sewage ... they call it biosludge ... on farmlands all across America. This was done in the 1990s. They actually wrote regulations that said, "Yeah, we'll take all the toxic waste of every city in America, we'll concentrate it into this material, we'll take the water out of it, we'll call it biosolids, and spread it on all the farms across America. Oh, and children's playgrounds, too, in the cities. Oh, and low income black community city parks." This is what the EPA did in the 1990s.

The EPA is really the Environmental Pollution Agency, at this point. And it works in collusion with the worst polluters in society today, which include Monsanto, to legalize this mass contamination of our world.

Patrick G.: So and we're sort of a genie out of the bottle scenario here. Right?

Mike Adams: Yes.

Patrick G.: So how is it justified ... and maybe it's not ... but how is it justified that without any sort of testing or control of this ... you know, some remote island in the middle of the Pacific that's uninhabited, where they can kind of play with this a little bit ... how do they just put it into the heartland of the country and say, "Let the winds blow?"

Mike Adams: Well, they're not thinking scientifically. They've abandoned science at the EPA long ago. They're thinking about, essentially ... This is the honest truth. Your average EPA boss, regulator, is really

only thinking how can they make industry happy so that they can leave the EPA and get paid millions of dollars a year working for the industry that they used to regulate? That's it. That's the entire game plan.

Patrick G.: And there's whole charts tracking this. Right?

Mike Adams: Oh, yeah.

Patrick G.: It's not speculative that this might happen. I mean, you can look at people who have had positions in government who have gone into the private industry and gotten very generous jobs.

Mike Adams: Well, it's called the revolving door. It's very well known. And it's even called regulatory capture by industry. So industry infiltrates the regulatory infrastructure, and then promises people money after they leave to come join them. So your job, if you work at the EPA or the USDA, is to appease Monsanto and Syngenta and other biotech companies so that you get rewarded with a lucrative job and benefits after you leave the EPA. That's all it is. It is a complete con. It is a quack science scam. They do it under the banner of science because they know that people are essentially programmed to believe anything that is stated in the name of science. But they have bastardized science. They are an insult to science. They are the anti-science organizations of our time.

Patrick G.: Isn't that absurd? That the public welfare is entrusted to these people with tax dollars for their academic credentials and ability to understand the science and to make decisions for what they call the public health and welfare, and yet the whole thing has just devolved into this swamp that is really disturbing, because it's not a matter that it inconveniences some people. I mean, we're talking about people's lives. We're talking about mothers and fathers and children and real people here.

Mike Adams: Well, this is why government should never be in the business of funding science. Today, nearly all science conducted in America is due to government money one way or another through a university or a grant or an NIH grant and so on. When you take money from government to conduct science, as a scientist, you have to produce the results they want. And they tell you in advance. They'll give you money and they'll say, "Oh, we want you to find that this is associated with that. Go do it." Or, "We want you to find that this is safe."

So the biosludge issue that I mentioned, which also contains glyphosate, by the way, when they spread that on farmland all across America ... There are groups of scientists who take government money to run quote research that concludes, "Oh, this is all perfectly safe." And they get promoted. They get more grant money.

While the other scientists like David Lewis, former EPA scientist, get fired, their lab funding gets cut, and they get blackballed from the industry.

Patrick G.: I was just about to ask, is there any precedents for scientists who actually come out with conclusions in their research that is antithetical to that agenda that the government has, or ... So there's precedents where they've been kind of discredited or fired or both?

Mike Adams: Countless times. Look, in Dr. David Lewis' book, which is called Science for Sale, he recounts back in the 1990s there were whistleblowers inside the EPA who were trying to go public with the fact that this biosludge chemical cocktail was dangerous. They got visited by government agents in the middle of the night who were armed and pulled them out of their homes and threatened them. We're talking North Korea style tyranny done by the government.

That was documented in David Lewis' book. This is not conspiracy theory. This is not new. This has been going on for decades. We're talking about science tyranny, a science dictatorship. And anybody who steps outside the bounds of science is attacked, maligned, defamed, threatened, audited. You name it. I mean, like this morning. We got hit with a massive attack. Why? Because we're doing real science.

Think about it. If my lab and my scientific work were completely nonsense and made no sense and was worthless, they wouldn't have to spend money to attack it. Would they? Because logic and reason would show it to be false if it were. Instead, logic and reason and real science show it to be true. So they have to spend money to try to take you offline. Silence your voice. This is straight up intimidation. This is mafia style stuff that we're talking about here, and I deal with it every day. As I sit here with you right now, you know I'm wearing a loaded gun, right?

Patrick G.: Yeah.

Mike Adams: You saw it before we sat down?

Patrick G.: Yeah, I wasn't going to mention it because I didn't know if you wanted me to. But yeah. I did notice it.

Mike Adams: And that's the way I have to live, because I'm a defender of legitimate, real, authentic science. I mean, lab scientists today, if you're doing real science, you have to carry a gun. That's what it's come to.

Patrick G.: Wow. I have this saying that the truth is only a problem for those who oppose it. And we could see that there's violent opposition here. So here's the interesting thing just on the personal level ... I mean, literally, you feel compelled to have to carry a loaded weapon with you because of the work that you're doing. So what is it that compels you to keep doing it? You're being attacked. Some people would look and say, "Oh, you're just sensationalizing whatever."

But I happen to know firsthand because I've been in this that you're not. And that there's legitimate threats and concerns that you should have because as a friend of mine used to say to me, "Be careful of whose rice bowls you break."

Mike Adams: Right. Right. Right. Well, look. I understand. If you're an every day person, you have a job somewhere, and you haven't been in this realm, you can't possibly understand the level of attacks and threats that are directed at you. I get it. If I weren't doing this today, I probably wouldn't believe some of this either.

But when you get into it and you find out, you start peeling back the layers, then you start getting attacked or death threated or smeared, whatever, you start to understand it's very real.

Here's the thing. Most people live in a pretend world where they think everybody's polite. They think science always tells the truth. They think if someone is wrong, that science is automatically self-correcting. They think that, "Oh, Monsanto is looking out for your best interests and Pfizer wants to cure cancer." This is a make believe ... That's a delusional world of flying unicorns, what have you.

In the real world, it is a vicious, malicious, aggressive war for power every day. And the people who play at that high level of wanting power and control, they don't care who they have to kill, who they have to poison, who they have to silence, who they have to pay off and bribe. I mean, GlaxoSmithKline admitted to massive felony bribery under a Department of Justice settlement. They paid a $3 billion fine. And went right back to business as usual because the government allowed them to keep conducting business. You know, if you-

Patrick G.: And nobody goes to jail!

Mike Adams: Nobody ever goes to jail.

Patrick G.: $3 billion fine. Well, you look at how much money they made on these products that they commit-

Mike Adams: 10, 20 billion.

Patrick G.: Yes.

Mike Adams: Right.

Patrick G.: And nobody goes to jail, which is ... That's the thing, if nobody's held to account, then it's just a math issue at that point.

Mike Adams: Yeah! If you made a nutritional supplement and you were convicted of fraud, you would be barred for life from doing business with the government.

Patrick G.: That's right.

Mike Adams: If you're GlaxoSmithKline, you pay $3 billion, you go back to business as usual. Pfizer has set up layers and layers of shell companies to take any kind of felony charges so that that company can take the charge ... That company has a criminal record. Get that company off the list. Go to the next company and they keep doing business.

Patrick G.: And the government allows it because if there is a felony charge against the company, then they're not allowed to sell any related products to Medicare. Right?

Mike Adams: Right. Right.

Patrick G.: And the government doesn't want these drugs cut off, so they just let them create the shell companies.

Mike Adams: They give them a pass.

Patrick G.: Yeah.

Mike Adams: Yeah. If you did that, again, you'd be charged with all kinds of felony conspiracy charges and money laundering crimes. You name it. I mean, these companies are all operating offshore, tax havens. I mean, massive money laundering going on. Massive bribery. 44,000 doctors were being bribed in the United States by Glaxo alone. That's what came out in the DOJ settlement. They admitted it! They admitted guilt! They didn't say, "We didn't do this." They said, "Yeah, we did it. We'll pay you $3 billion, move on to the next scam."

Patrick G.: Sorry. It's really, really disturbing. And here's what occurs to me. I think most people look at this and say it can't possibly be true because they just couldn't imagine that anybody could be that evil. That any people could be that ... That was the issue for me, I got to say, is that I just can't imagine that people ... There's no way that people would just let this be, could know about this and not say something. But there's now way too much evidence and that for common people who have some type of a moral compass, they would not believe that something ... This is the stuff of movies and fiction. But I've seen enough myself to say, "Oh, my God. There is that level of evil in this world."

Mike Adams: Well, I used to be that guy who thought that the world was a nice place and everybody was working for the better good. The reason is because that's who I am. And I was raised with compassion for all living things. I was raised with a strong ethical foundation. I was taught do unto others as you would want them to do unto you.

And so I was projected that onto the world. And then, wow. What a wake up call to realize that at the very highest level of government and corporate power, all of that is abandoned because there's so much money at stake. There are billions of dollars at stake every year. And the things they are willing to do would absolutely astonish you. I mean, killing babies? That's just the beginning for them. Just the beginning. Mass genocide? Yeah. If it can make them money, they'll do it. Doesn't matter. Ecological

destruction? Look, Monsanto made Agent Orange. And look what they did with Agent Orange in the Vietnam War. How many people were maimed and tortured, their skin burned off with chemicals? And the destruction of the ecosystem. The long term effects of Vietnam veterans who are suffering to this day because of the chemical weapons that Monsanto manufactured for that war.

Patrick G.: And for so long trying to deny that those caused these health problems for these veterans, that they tried to deny that.

Mike Adams: Right. Right. Look, at the highest levels of power in this world, they're always waging war. War is a constant. It's just different vectors through which that war appears. Sometimes it's chemical warfare. Sometimes it's kinetic warfare like the Vietnam War. Sometimes it's economic warfare. Sometimes it's political warfare. There's always war going on.

And usually, the victims of the war are you and me and all the people that we are trying to wake up to say, "You are not a free citizen living in a free society. You are a wage slave who is supposed to get cancer so that you can enrich the cancer industry. You are supposed to be contaminated with the glyphosate. It's not an accident. You are a money making system for the health care scheme that requires you to suffer and get diagnosed with cancer so that money can flow through the government reimbursement system, through Medicare and Medicaid to those drug companies." It is a money vectoring system. It's really money laundering through your biology.

And that's why the drug companies today ... I mean, the health care system as a whole is almost one out of every four dollars of the United States GDP. It's really between one out of four and one out of five at the moment. But it's climbing. And if the sick care industry has its way, they will take 50% of every dollar produced in this country. It's never enough for them.

Patrick G.: Yeah. Which is over $3 trillion at this point per year. Right?

Mike Adams: Well, at least.

Patrick G.: Yeah.

Mike Adams: At least that, yeah. And growing.

Patrick G.: Yeah.

Mike Adams: I mean, look. I mean, Trump's in the White House talking about, "Oh, the economy's growing. Stocks are up." Well, if it's the drug companies that are growing, how is that good for us? If more people are getting sick so the drug companies are getting more money and the cheerleaders are saying the economy's booming? Wait a second.

Patrick G.: Well, isn't it a wonder the thing that is somewhat delusional is calling sick care, health care?

Mike Adams: Right.

Patrick G.: Right? And that's where, when you have that foundational contradiction, there's just no way to solve it until you start to figure out there's a difference between sick care and health care. But if you give health care to a culture of sick care, you end up with a sick culture. So these are really disturbing, and very difficult to wrap your head around, to say that, "Could there be this type of, this scale of malintent that persists?"

And would you say ... Because this very interesting, we talk a lot about the details and the science around GMOs, glyphosate, all the collateral damage it does, etc. And you've covered that also. But now you're getting into kind of the human element and the dynamic of the engine that drives this machine and how this comes to bear on humanity. And nobody's immune, obviously, because the world is so interconnected now. It's not like you can isolate this. This is affecting everybody.

So do you think that there's people who are working in these areas, either the government agencies or these big corporations, who have the right intentions? So are they also cogs in this wheel? Or how do you see it? Where is the malfeasance? Is it just at the very top in the boardrooms? Or is it somewhere below that?

Mike Adams: No. You make a really good point. People throughout this ecosystem of regulation, government, and industry, are able to lie to themselves quite convincingly. This is one of the most astonishing properties of human consciousness, is the ability for truly evil people to tell themselves that they're doing good. Adolf Hitler did it. And what was his goal? To improve humanity, in his mind. Right? And his soldiers followed orders because they thought they were improving humanity, too. They were going to create a master race. Whatever.

Patrick G.: And this is all based on this greater good concept, that there will be victims, but for the greater good we're going to increase crop yields, fields ... yeah.

Mike Adams: Right. Well, and so, that philosophy of the Third Reich was that the greater good is more important than the individual. And they ran the ovens, they ran euthanasia, routinely. They would kill off the infirm, the diseased, handicapped, mentally retarded, on a regular basis. And they even had posters. We've published some of these posters, in German, talking about, "Oh, look at the monthly cost to take care of this sick person! We should get rid of them for the good of the state!"

Well, we find these messages reflected in the GMO industry, in the vaccine industry, in the pharmaceutical industry. The same thing. It's that, "Oh, we, the GMO industry are here to save the world with food. And if a few people get cancer from the glyphosate, that's a small price to pay for moving society forward and creating this utopian vision of genetically food inundated with chemicals." So, they lie to themselves. There are a few people who are truly, truly evil. We've exposed some of them ... I'm not going to name them here ... who enjoy, they relish in the murder and the killing.

Sometimes, you'll have soldiers deploy to an arena. And most soldiers are just trying to do their what they see as right. But there are always a few soldiers who love the blood and the killing. In the GMO industry there are operators like that. They love the smearing and the defamation. They loved putting out the death threats. They love what they do because they're inherently evil. They're really dark souls. And they get attracted to the GMO industry because that matches the lack of ethics inside the corporations like Monsanto ... sometimes called Monsatan, is widely known as the most evil corporation in the world. And we see from the emails that have come out that they openly commit extreme evil. And Monsanto executives, who I think should be indicted and imprisoned and charged with crimes against humanity, they are fully aware of what they're doing and I think they relish in the evil, as well.

Patrick G.: Wow. So where do you think this is going to go? There's a lot of truth coming out now, in large part thanks to you and others like you who are willing to take a stand. And like you said, what happened in California, these emails coming to light in discovery, and there's probably more that we're going to be finding out

coming out in the future, I think. Because once that kind of cracks open, it seems like it kind of leads to a flood of this stuff. And I think it's cracked open, now.

So what do you think in the next five years is going to happen with the GMO initiatives.

Mike Adams: I know exactly what's going to happen, because I'm making it happen. Results are going to come out showing glyphosate contamination in all of the off the shelf groceries. The country is going to ... People are going to start to connect their cancers with their exposure to those cancer causing chemicals such as glyphosate. And then a wave of new lawsuits will be waged against Monsanto, and eventually they will crack and they will break and there will have to be a massive settlement. Something like Big Tobacco. At least, this is what I'm confident will happen.

Now, there is a slight chance that Monsanto will go to Congress and they will do what the vaccine industry did, which is to get Congress to pass a special act that immunizes them against all lawsuits, forever. Vaccine industry already did that. The Supreme Court has already said that it is lower than the vaccine court because of this act of Congress.

Patrick G.: Wow.

Mike Adams: Yeah. So Monsanto is right now behind the scenes lobbying lawmakers, hard, to be able to get immunity from all lawsuits related to glyphosate exposure. I don't think they're going to be able to succeed at that. But that's what they're attempting to do. I think that this is all ... The truth is going to come out and it's independent science that's going to do it. And I think that Monsanto façade will fall. And I think, at some point, whistleblowers will come out from inside Monsanto, and they will have tell all books or movies, documentaries, that will expose it. Just like what happened to Big Tobacco.

Patrick G.: It seems to follow a pattern, doesn't it? That there's precedents for all this, and it seems like it will kind of unfold the same way and that that makes a lot of sense. And actually, in this era, information is spread much easier than it was back in the tobacco era. Again, that's your world. You live in that information world. [crosstalk 02:00:41]

Mike Adams: Right. But something has been working in Monsanto's favor this whole time, which is the extreme scientific difficulty of quantifying glyphosate as it's contaminated in foods. Glyphosate, being that it's similar to VX nerve gas, it's very tricky to detect. It is difficult to ionize it in mass spec systems, for example. Labs have been working for over a decade on ways to ionize and detect this molecule.

Well, I happen to know that there's progress being made at a very rapid pace. I don't want to say too much, yet, here. But they won't be able to hide behind this much longer. The day is coming soon when you will be able to go to a website and type in a brand of cereal. Let's say Corn Flakes. Whatever. And you'll be able to see glyphosate numbers that were found in that off the shelf product. That day's coming.

Patrick G.: Wow. And that should really add a lot of momentum behind kind of the anti-GMO movement that exists.

Mike Adams: Well, it's going to show people that they're being systematically contaminated. And you're going to be amazed, because some of that contamination will also be exposed in certain certified organic products, believe it or not.

Patrick G.: Yeah. Well, that's going to be very interesting to see.

Mike Adams: Yeah.

Patrick G.: Are you seeing ... because it's the way I see the trend, is that people shopping for non-GMO products, that that's escalating. The demand for that is actually escalating. So there will be consumer demand that's also going to help drive this.

Mike Adams: Well, absolutely. That's already a big success story. The non-GMO product verified label is having a huge success. We're seeing Amazon.com started testing some of their in house supplements for heavy metals. And that's, I think, because of our work because we published Food Forensics and listed the heavy metals for 800 foods and spices and pet foods and everything. And that was a wake up call for a lot of people.

But what's coming next is ... Well, two things are converging. Number one is transparency, like you said. But there's also the miniaturization of scientific instruments. In the not too distant

future, consumers will be able to go to the grocery store and point a smart phone connected device to, let's say, lettuce, and it will tell them whether that lettuce is contaminated with pesticides or glyphosate.

When that day arrives, it's over for Monsanto. We want everybody to have this technology. Everybody to have the awareness. You pour a bowl of cereal in your own home. You point your device at the cereal and it tells you, "Oh, don't eat that! It's got glyphosate in it." That's the ultimate empowerment.

Patrick G.: Basically, this is the democratization of science, where now it gets in the hands of people as compared to being controlled by a tight core of people who can selectively release information.

Mike Adams: Yeah. This is the answer. You see, real science, when it's what I call peer to peer science or democratized science or distributed science ... Real science will defeat the fake science of Monsanto. And the key is that it has to be distributed. It has to be science in the hands of the people. Even, perhaps, you could use blockchain technology combined with the logistics of the food supply to know the origins of food and to know the authenticity of food. Most food coming out of China, for example, is fraudulent. A lot of it's counterfeit. But even to talk about pesticide testing, that could be part of the blockchain.

I may be involved in a project like that. It's right down my alley. But my ultimate goal is to make my kind of lab obsolete, because everybody should have access to that technology. Everybody should be able to test the food before they eat it. Everybody should be able to share this information. When that day comes, Monsanto's obsolete.

Patrick G.: Yeah. So with this ... and you've kind of shown ... the dark side is just ... describing which is very chilling. But then, also a positive vision for the future as far as saying, "Hey, science can get democratized. It can get put in the hands of the people." You'll have peer to peer science, as you described it where people can now know. They don't have to rely on other sources. Because right now what happens is they'll go to Natural News and they're going to learn about the stuff you're reporting on and they're eyes are going to open. They'll watch a docuseries like this. They're looking to get unbridled truth out into the culture.

But then at the other ... they're going to have propaganda against them. They're going to have legislation that's going to be passed that's going to try to limit this, etc. So they're kind of ... They don't have the personal power to just find out for themselves. So how far away is this future where basically the mom doesn't have to rely on labs and independent testing, she can find out for herself?

Mike Adams: Well, there are simple spectroscopy devices that exist right now that you could attach to your iPhone, let's say, that can detect the macronutrients or phytochemicals, such as certain antioxidants, for example. That exists today. But pesticides are usually present at a very small amount. Typically under one part per million. So you got to get into the parts per billion detection range. And that usually requires a mass spec or mass spectrometry, which measures the mass to charge of molecules. That technology is also getting miniaturized.

Right now in my lab, I have a mass spec machine that's this big. I was at a trade show recently where I saw one that was this big. Does the same thing. And the sensitivity is going up. So now we have sensitivities that can detect these molecules at parts per trillion concentrations, which is one one thousandth of a part per billion.

Patrick G.: And at what concentration does it matter? Where it should be a concern?

Mike Adams: Well, we don't know the answer to that yet. We know that glyphosate may have certain hormone disruption properties at low parts per billion concentrations. It may not cause cancer, though, unless you consume a certain total amount, an aggregate amount, versus your body weight. So it might be milligrams per kilogram of body weight. We don't know the answers yet. But see, the government won't allow the science to be done on this. They block all of the funding for that.

So it's up to independent labs like mine to really engage in this real science that ultimately should be distributed to everyone. You noticed that when I test something and I get results, I always publish it for free. I never say, "Oh, you have to pay money to find this science paper." I never say, "You have to pay me for these results." I say, "This is food that everybody's eating. Everybody deserves to know what's in their food." So I'm trying to create the

democratization of scientific results today. But it's hard for people to know what to trust because science, real science, is hard.

Patrick G.: Well, let's talk about the scale of what you've been able to do. How many people are coming to your website?

Mike Adams: Oh, millions a month.

Patrick G.: Millions a month?

Mike Adams: Millions. Yes. Even despite all the censorship and attack. Still millions a month.

Patrick G.: Yeah. So there's obviously been an appetite ... Again, no pun, but there's an appetite for this information, and they're showing up and consuming it. And I have to imagine that the trajectory is that this is growing as far as the amount people are coming to take a look.

Mike Adams: Well, right. And there are secondary effects based on who we are and what we do. So the success of the non-GMO project is due in significant part to us because we are letting people know the dangers of non-organic food. Letting people know about the pesticides and the glyphosate that's in their food. So why do people search out non-GMO? Because of sites like us and others out there. We're not the only one, obviously. And work like what you're doing.

But there are secondary effects. And what's really fascinating is as the truth keeps coming out about Monsanto's collusion with the EPA, for example, more and more people who used to be skeptical of all of this are waking up. Or they're having children and they realize, "Hey, I don't want to feed my child this toxic, contaminated, glyphosate flakes for breakfast." Because it's in a lot of cereals. Right?

So there is an awakening that's happening. And it seems to be accelerating. And my goal is very simple. Stay dedicated to the truth. Use good science, independent science, to find the answers. Share those answers with the public. Encourage other people to follow along and do what we're doing. I hope that other people will set up labs like I've set up. And I'm even willing to help them. There's a lot of technical expertise that goes into it.

But it takes a lot of money, too. And usually that money is ... Millions of dollars is hard to come by unless you're working for the system. If you're a drug company executive, yeah, millions of

dollars is no problem. But you can't do independent science if you're working for a drug company. And if you're getting government grant money you can't do independent science. So it has to come from the private sector. Well, how many private sector entities are willing to spend millions of dollars to build a lab just to expose the truth that doesn't help them, really, in any way? Not that many.

Patrick G.: No. I'd say it's a small number.

Mike Adams: It's a short list. Yeah.

Patrick G.: Mike, I feel like I could sit here for many more hours and have conversations with you. And I really appreciate all the wisdom you've brought, here and your willingness just to share it so openly. But more importantly I really appreciate all the work you're doing in the world. I think your impact is measurable and it's on a large scale. So thank you so much for your time.

Mike Adams: Well, thank you for the invitation. And the reason that I'm here and agreed to this is because I get the sense that you're the kind of person that doesn't want to waste viewers' time.

Patrick G.: That's right.

Mike Adams: And I'm not here to waste anybody's time, either. I'm here to tell you the way it really is in terms of independent science, what's going on behind the scenes. Not everybody's ready to hear it yet. But people can come back to this series over time. And they will find that everything that we have talked about here is true. It's all happening. People need to know the truth.

Patrick G.: Well, thank you so much for bringing that truth out.

Mike Adams: Thank you.

Patrick G.: I trust you had a powerful experience with this episode. I thought that the information was riveting. And now, tomorrow, the momentum continues to build. So let me tell you a little bit about what we have in store for you. We start out going to Houston, Texas, going to the Global Healing Center, where I interview Doctor Edward Group. And I got to tell you that I was mesmerized with what Doctor Group had to say.

And also, not only just the information, but he's got such a spirit and a heart around wanting to help humanity be healthier, lead them to higher ground. And his information surrounding GMOs and his context for it, and also the solutions for people who are exposed to the toxins- related GMOs, I thought, was profound. So you're going to really like that interview.

Then we have Toni Bark interviewing Jayson and Mira Calton, who wrote the bestselling book Rich Food, Poor Food. And you're going to learn things about foods and micronutrients that are going to be very important for you.

Lastly, we close with what was maybe one of the most inspiring stories I know about throughout this entire process. We speak to Tami Canal. Tami Canal was a stay at home mom who was outraged by what she saw the GMOs, glyphosate, Round Up, Monsanto. She looked at this and said, "I have to do something." So with a stay at a home mom, with her laptop, she starts a thing called March Against Monsanto. And this one person who takes an action because of the outrage of what's going on, in the first year, March Against Monsanto worldwide gathered 3 million people in an effort to bring awareness to what this corporation called Monsanto was doing to us and our children, and to the whole GMO issue. Don't ever underestimate the power of one. Don't ever underestimate the difference that you can make.

And this is why I continue to ask you to share GMOs Revealed. Let people know about it. I also know that this is an enormous amount of information, believe me! I flew all over the place interviewing all these people, and I got to tell you that I know that sometimes you want to revisit the information. You want to have it. You want to share it. And not everyone can see every episode every day. So I want to encourage you to own GMOs Revealed, and support the GMOs Revealed movement. On this page, we have gold and silver packages. And we made these packages affordable to just about anybody. There's additional bonus materials. Maybe some of you want a audio version of the program so you can listen to this while you're going to the gym or while you're driving your car. Maybe you want more reference materials that are printed, and we put those into the packages. So check out what we have.

But ultimately, what I want you to do is to consider supporting the GMOs Revealed movement. Own this material, share this material,

and let's you and I together do something that can right this terrible wrong that's in the world.