Introduction and Guest Background

This is Doctor Kevin. Whole tour with another episode of the Peptide Summit. Today we have Scott Forest Grimm. He is a functional diagnostic new, nutrition practitioner.

He's a health coach, a blogger, a podcaster, a health writer, an advocate. He just really does it all. He's at every conference I've I've ever been to.

It's a pretty amazing. He is the editor and founder of the Better Health Guide. Which I highly recommend you go to where he shares is 23 and he shares 23 year experience going to the world of Lyme disease, mold, illness and the myriad of factors that, that these terrible illnesses entail.

His his podcast of the Better Health guy interviews many of just really the top experts in the world, actually, and leaders in the field of integrative medicine.

It's available on his website. Better health geeks. They're on YouTube, iTunes, Google Play, Stitcher, and Spotify. He has been interviewed on numerous podcast and lectured on his recovery from chronic illness.

From chronic was at conferences on several online summits. He has written for the Townsend Letter and numerous publications. He is the founder for the form of integrative medicine.

Where he hosts an annual conference and brings together a some of the top integrative practitioners that share practical tools. And that just ended, and I was honored to be part of that.

Went really great, even, with the with the, Covid virus. He had a quick switch. So I was really nice. He serves on the board of directors for Limelight Foundation, which provides treatments and grants for children, young adults recovering from Lyme disease.

He's just everywhere, I'm telling you. And we're really grateful to have Scott. And really to go through, the struggles and what got him better and his long journey.

I'm very excited to hear about it. And I, thank you for being part of the, Peptide Summit, and I welcome you. Thank you so much. It's an honor to be here, doctor. Whole staff.

So great. So we'll we'll kind of just get get going here and tell you about your, your personal journey with, chronic Lyme and mold and how you got started in this, and.

Sure. And how it all ended up. So I had a tick bite in Northern California in 1996, and I didn't become ill right away. It was several months later, in April of 1997, that I had, over the course of a weekend, what felt like a very significant flu.

So 23 years ago this year, I did not have, any indication of Lyme disease. Early on was really trying to figure out what was happening. Over the next few months, my symptoms were so significant that there were times that I wasn't sure if I would survive it.

There were times that that would have been okay. Fortunately, I'm doing very, very well today. But at the time, I had probably my worst symptom was head to toe burning sensations.

It felt like a sunburn around the clock. And that lasted for many, many months. I had a low grade fever for about a year. I had things like muscle twitches or physical lesions.

Numbness, tingling. A number of gastrointestinal symptoms, cognitive issues, tremors. I had some motor, like, tapping sensations in my left foot that constantly just felt like there was a motor or engine that was running there.

Light sensitivity. Sound sensitivity. For some period of time, just getting up and walking across the room was challenging. My balance was off, so even sitting up in a chair was challenging.

Lying in bed at night was challenging. I would put pillows down one side just to to give me that, confidence that I wasn't going to roll onto the floor because that's what it always felt like.

And so from 1997 to 2005, I went to 45 different doctors. The majority of them suggesting that it was psychological referrals to psychiatrists. I did get diagnosed at the time with chronic fatigue syndrome with fibromyalgia.

We did explore Ms. as a possibility, but back in 1997, the only thing you could really find online was that chronic fatigue syndrome was something that may resolve in about a decade.

There wasn't a whole lot known about it at the time. And so for me, that was really not, promising or acceptable. And so I continued the search. In 2005, I started with a new medical doctor who really had no idea how to help me, but he sent me to an acupuncturist that worked at an outlet mall that did computerized electrodermal screening or electro acupuncture.

According to vol. These devices are known as EDS devices or E AV devices. And so she was tasked with testing me for various foods and identifying the foods that I should avoid.

And the medical doctor suggested that was probably at the root of my condition. And so after a couple hours of working with this lady, she suggested that I go back to the medical doctor and have him test me for Borrelli.

Bartonella, BCI and or Lithia. This was the first time that Lyme really came into my consciousness. I didn't really take it that seriously right away.

All of this energetic testing was so new to me, and so I ran into her again. A couple of weeks later. She really urged me to go back and get the testing done.

Scott Grimm's Lyme and Mold Illness Journey

We did a number of tests. Some of them we had to repeat a few times, but ultimately, over the course of about nine months to a year, we were able to, get confirmation of what she was finding that Lyme disease and co-infections were, in fact, a player in my condition.

And so that really piqued my interest in energetic testing. That was around the time that I started, studying with Doctor Dietrich. Clean heart. I didn't yet understand it.

I was in the high tech world here in Silicon Valley, working in the computer industry. But I could see that this was leading me in a direction that was very helpful.

And so for me, it also was an indicator that really thinking outside the box sometimes is where the solutions actually lie. And so energetic testing is something that I still, very much utilize today and find very, very helpful.

And so I would say, you know, that's kind of at a high level. My journey shortly after that, I discovered mold was an issue that I had been living in an apartment that had mold for many years, but no one had ever connected the dots to say, well, mold in your living environment could lead to health problems.

Until Richie Shoemaker started talking about that. The book mold was in 2005 led me down that path as well. So there's never one thing, and one of the challenges, I think, with Lyme disease is we can get so hyper focused on, oh, if I can just kill the bug and just get rid of the line.

But there's usually so many other factors and that's what we're going to talk about today that we really have to explore. And one of the things that was, very helpful for me was working with Doctor Dietrich, clean heart and really not just the things he recommended for treatment, but the framework or the healing model that he's put together really changed the way that I thought about recovering from chronic illness.

So fortunately, today I'm doing very well. I do continue to take very good care of myself. I do take supplements. I'm careful about my nutrition. I manage my sleep and stress and all of those things that I probably should have done in the first place, that possibly would have then led me to not going down this path of chronic illness.

But I am, blessed and fortunate and very, very grateful to have the level of health that I do now. Wow. Well, and that, I mean, yes, I should have done this, you know, that you were out in Ireland because even your symptoms were not the standard chronic fatigue syndrome, fibromyalgia.

And those people got treated horribly. And you're out here with these burning sensations. And I can imagine the, you know, standard doctors that you go to your experience where they just say that you must be crazy, you know, and, and then just again, the luck or, you know, just the fact that you went along with, with the, the the energetic practitioner insisted on checking for Lyme.

I mean, even nowadays that's difficult. So that that that is great. That's. Wow. Again, plagued with something. But thank God, you know, you had a couple episodes of things that that really helped.

Absolutely. And and so, like, throughout your journey, what would you say, you know, looking back, would you have done over again or done differently?

And in some key things it's always tough, especially that who especially then no one knew anything. Yeah, I don't know that I necessarily would have done a lot of things differently, but I think in my mind this kind of emerged the steps that I might take if I were doing it again.

And so there certainly were some things that I focused on 15 years ago that maybe weren't the things that were the most critical. I think we oftentimes jump into that mentality of, oh, let's just kill the bug, kill the bug, kill the bug.

And I don't necessarily think that that's the way that we recover our health long term. And then a number of the tools have changed over the last 15 years since I was diagnosed with Lyme in 2005.

So back then it was you'll be on antibiotics for the next 2 to 5 years, possibly the rest of your life. That's just what we have to offer. Since that time, there's so many herbal, homeopathic, many other tools that have emerged.

So I think I might have, if I were starting over, I would certainly lean much more towards the natural healing path rather than doing, years of antibiotics, which I did do back in 2005.

I think those have some long term consequences. At the same time, I'm also open to the idea that we need many tools in the toolbox. So I don't know that I necessarily regret or would would do anything significantly different.

But I do feel like with the many years of going through this process, that we have a better understanding now. And I think for anybody that's, you know, dealing with something like Lyme disease or mold illness, that the recovery can be shortened to a much smaller period of time simply because there are practitioners now that understand the puzzle pieces that we really need to explore, and to try not to miss some of the really critical things.

And I totally agree. And we're very similar where I was under the impression, let's just kill this thing and myself and, you know, three and a half years, the highest dose IB antibiotics kill the bug, kill the bug.

Now we're really backed off of that. And, you know, gone through are so many different areas that it affects and kind of that multi-system treatment. And you want to give us just a quick overview of your steps that that you feel, would help, the listeners.

Yeah, sure. So, you know, this is constantly evolving and changing in my mind. It's not necessarily a protocol. It's not intended to empower people to self treat, but it is really intended as information from which you then can have a conversation with your doctor in terms of what things to explore and maybe what things to try.

So, you know, I definitely think Detroit Klinghoffer and Neil, Nathan Simon, you Rosh Patel, a number of the doctors that have really been mentors for me over the years.

And so what I would say is, in my mind, the first step is really supporting detoxification and drainage with a focus on improving the terrain. I think that's absolutely critical.

The second step would be improving the external environment. So we're really only going to ever be as healthy internally as the environment around us.

So here I'm thinking about mold exposure or electromagnetic field exposure. Number three I think about optimizing sleep simply because it affects so many other things in our healing process.

Number four, mental and emotional health. So what past traumas or conflicts might have set the stage for illness? Or how has the illness itself traumatized us in terms of now we need to process that because we were invalidated, not supported those types of things.

Number five, I think about ways to support the limbic system or retrain or reboot the limbic system. And also to tone ify or upregulate the parasympathetic nervous system.

Next I think about in number six stabilizing mast cells reducing inflammation immune modulation. So really getting the immune system better balanced so that we're working towards that goal of having, better manage the microbes that may be there.

But we're doing them by getting the body to do what it was designed to do. And then moving on. Number seven, looking at our nutrition, our microbiome, our gut health, making sure that we're really supporting that so that the immune system, again, is supported as much as possible.

So much of the immune system coming from the gut. Number eight, this one is really a grouping of things at this point. But supportive intervention. So do we need to support the mitochondria.

Do we need to look at hydration. Are we, you know, drinking lots of water, peeing it out and still cellular lead dehydrated, which is very common in these bio toxin illnesses.

Do we need to look at something like supporting minerals and B vitamins from a condition known as crypto pyro, Luria, optimizing our coagulation, making sure that our blood is not so thick that number one, the treatments we're doing aren't getting into the body, into the places we need them to, but also from a perspective of oxygen delivery, supporting the adrenals may fall here as well.

And so once we look at those supportive things now, we've kind of got this foundation to build from. And that's when in step number nine, I think about the microbes overgrowth.

And what do we need to do to support the viruses there. Retroviruses that may be activated within our DNA, the the parasites and gut dysbiosis and fungal overgrowth and yeast and things of that nature, some of which could actually, in terms of fungal colonization, come from environmental mold exposure.

Then I think about Lyme and co-infections. So Borrelia, Bartonella, babka, even some of the opportunistic infections that maybe aren't from the vector that gave us the Lyme disease, but things like mycoplasma, chlamydia, pneumonia, that then can, put an extra burden on the system, wrapping up that focus on microbial overgrowth with some thought around whether or not biofilms may need to be considered and supported, then number ten, I think about the potential for dental contributors in some cases that may need to move much earlier in the process.

If there is an obvious dental issue that could be more significant of a priority for someone. But I also think a lot of times if we get the body enough balance, then even if we do need to do some dental work, we may then respond to it better or we may heal better.

It may actually be much more effective. And so I put that, as step number ten. And then step number 11 is really regenerate and restoration and repair.

So after we've been through this process of being sick for in many cases years in some cases decades, even when we get to the place that we've addressed all of those stressors, we then maybe need to do some things to help support the body in restoring, regenerating, and repairing.

Great, great. And it's pretty amazing. A couple things jumped out of me as one is like, how could a standard physician put this all together? And I think it is amazing that there's these, you know, integrative doctors that are doing this.

You know, some may not have all the parts, but even caring enough and, you know, we have patients cry in the office, you know, at the first. And it just shows you that we believe that.

And like you believe me, you know, and it's crazy. It also what really kind of stood out is your is the emotional component, the limbic system, parasympathetic where so often we find it after an emotional trauma, you know, like a divorce or a death in the family and which I think lends itself with chronic fatigue syndrome.

Oh, see, it's a stressed out woman, but I, you know, give a lot of lectures how that affects, the immune system so much. I think stress lowers immunity, but it doesn't it modulates it.

And then with like PTSD, the limbic system, how? And then just causes this vicious cycle. What is well, what you're saying and where people with mold or don't have any, you know, Lyme or other problems or they're fine, but it's just another burden.

And I think that that's pretty amazing. With that, you want to go through maybe the first, first part of it and then talk about the detoxification and drainage and are those different things.

Yeah. So in my experience, again, the detoxification and drainage piece is the most critical. It's what I really put the most focus on personally in my own recovery and health maintenance protocol.

It's amazing how many things we come into contact with on a daily basis that are toxic, the number of chemicals and pesticides and metals and all of these things that we need to think about.

I honestly don't think that we would have symptoms of Lyme and co-infections if we didn't also have a concurrent toxic burden or, a real issue with our terrain.

And certainly mold toxins can fit in here as well. So ultimately, I kind of summarize this by saying that improving the terrain is the road back. And we can also think about detoxification as an indirect microbial management strategy.

Recovery Lessons and Healing Framework

So we know that certain organisms like Candida or Candida and parasites, they may be in the body as a protective mechanism to concentrate or protect us from heavy metals, for example, so that they're not damaging us in more significant ways.

And so, this is also helping to deal with some of that microbial overgrowth. And so for me, the first thing we really need to look at is minimizing as many incoming toxins as possible.

I think people forget this, but we don't need to detoxify from something we're never exposed to. So looking at personal care products, looking at, you know, scented products, laundry products, those types of things.

So making sure that we have pure air, pure food, pure water, thinking about toxins maybe that are introduced into the systems from, something like breast implants or metal implants in the body.

Those certainly can add to our toxic burden. And so the difference between detoxification and drainage, in terms of how I think about it, is that detoxification is conceptually about binding toxins in the gastrointestinal system, getting them out of the body, minimizing entero hepatic recirculation.

And so once we get the toxins from the liver, we need to get them into the bile, the gallbladder, the small intestine. And we really then want to grab on to them and not reabsorb them as the body attempts to recycle the bile.

So that's primarily what I'm thinking of in terms of detoxification. And then drainage is really about supporting the body's inherent capacity to detoxify.

So looking at the liver and gallbladder, the kidneys, the lymphatic system, the extracellular matrix or interstitium, looking at the colon, the skin, the lungs and really optimizing all of the exit routes or in monk diaries as much as possible.

A very early priority is getting people pooping. Honestly, it's amazing how many people you talk to that say they, have a bowel movement once a week or twice a week.

Constipation and healing do not go together. So that's an early priority. And certainly critical from a detoxification perspective. We don't want to forget the gallbladder either.

Again, we need the bile to flow to really keep moving. And if we can optimize that bile flow, we're actually then able to have a more effective benefit from the binders that we're taking.

So we can take binders all day. But if the toxins are never getting put into the bile and pushed into the small intestine to meet up with the binders, then they're not going to be very efficient or effective.

There's so many good binders out there. So I love, talk. Assuming Supreme from Supreme Nutrition is great. There's a number of bioactive carbons from microbe formulas that I've really grown over the past couple of years to like, bio pure has a number of great products, things like chlorella and zeolites.

Some people like bentonite clay and things of that nature. I think they all can be helpful. And I actually like to rotate binders to some extent and use different binders over a period of time.

And then when I think about drainage support, looking at primarily homeopathic. So, people may be familiar with companies like Energetics or Picanha or Des Bio.

They have some phenomenal tools and then combining those homeopathic with various herbal tools. So we're thinking about for the liver milk thistle or dandelion or for the kidney solar doggo or for the lymphatics red root, for example.

And so, so many, great products in this realm. Again, not forgetting the gallbladder either. Usually incorporating something that's very bitter to help with the gallbladder and that that bile flow.

I also think of trace minerals, which I happen to have some in this glass of water is another, you know, great tool for really supporting improvement of the terrain and reducing heavy metals over time.

I think a lot of the reason that we hold on to heavy metals is a lack of minerals. So silica is another, tool that can be really helpful as well, particularly when we're talking about aluminum and supporting detoxification.

So I do silica every day also. And then I would say movement is important. We need to keep the lymphatic system going at a minimum. Just walking, if that's all someone can do, is take a few steps.

That's going to be better than not doing that in terms of keeping our fluid flows moving and supporting the lymphatic system. And then we can think about so many other adjunct tools that I personally find tremendously helpful.

So coffee enemas personally would be at the very top of my list. They got me through so many days of pain and suffering, that I can't imagine what it would have been like without having that as a tool for supporting detoxification, supporting bile flow, all of the things that we're talking about colon hydrotherapy, ionic foot baths, castor oil packs, oil pulling, liver, gallbladder flushes with the caveat that I think those should be medically supervised.

Those can be really, intense in some cases. And so there should be really done with someone's doctor sauna therapy at the right time. I think saunas can be, provoking in some cases.

There are toxins that are mobilized in the system as well. So if everything's set up to help excrete those toxins, it can be great. But if the pathways are not open, you can actually, make yourself feel worse and auto intoxicate.

Essentially. And then I think since we're talking about peptides, BPC 157 from its perspective in terms of helping heal the lining of the gut, if we can minimize leaky gut, minimize the intestinal hyper permeability, and minimize the endotoxin Mia from lipopolysaccharide after we eat foods, particularly certain fats like coconut oil and others.

I think that that is another tool that's helping to minimize the toxins that we're getting into the body. Gotcha. We're just checking, you know, kind of normal, so-called normal, healthy people just have a little fatigue in everyone's gut is messed up.

It's so permeable. And I'm just thinking to go on through it, you know, already obviously this whole detoxification and and drainage needs, you know, so much more time to go into depth.

And I was thinking silica. Hey, beer. You know that that there's a lot in there. I haven't tried that one, but and how about, like, sleep and detoxification or drainage?

Yeah, the lymphatics, especially for the brain. You need good sleep or they don't open up. I know there's some some research on that. Yeah. How everything kind of goes together.

Maybe just summarize that, because I can just see people going, oh my gosh, you know, there are so many things. Do you, do you take these different binders just on a rotating basis.

Do you take them at certain times during the treatment or how do you I personally feel that binders, are something that should be in a treatment on an ongoing basis.

I think that the the world is, toxic enough that having that additional support is a good thing. Now, do I, use more than one type of binder in a day?

Absolutely. Do I rotate them at times? Absolutely. I think it's going to really, be very individualized. And then one of the challenges with most of the binders is the compliance, because you generally need to keep them a couple hours away from food, from supplements, from medications.

And so, you know, even if you can only get them in once a day because of that restriction, it's better than letting them go entirely. There are some of the, the newer binders, the the bioactive carbons that I mentioned from microbe formulas, that are more forgiving and can be taken with other supplements with or without food and so on.

So I find that's, a nice advantage of some of those binders. But yeah, I do think binders should be, for the most part, something that are incorporated on a longer term basis.

Gotcha. And is there a place you recommend, the people, you know, watching this to go for more information on that, and just try to get some sort of summary.

Yeah. I mean, they can certainly go. I mean, I've done some podcasts on these topics as well, so they can go

there. They can always reach out to me directly through the website if they have questions as well.

Certainly happy to help with that. Great, great. Appreciate that. And and so your next point was, you know, external environment very keen a lot of it we can't control.

And it's very difficult. But what's your recommendations. On that. You know, I think from an external environment perspective, this is really looking at mold and emfs.

And I think that we can take supplements all day long. But if our external environment in our home, our school, our workplace, if that becomes our Kryptonite, then we're never again going to regain our super hero status.

And so I think mold is really the first one that we need to explore in this soup of stressors. Water damaged buildings lead to lots of different toxins, not just molds and mycotoxins, but different bacteria.

A whole list of things that are in this toxic soup in a water damage building. And so I think for most people that are looking at Lyme disease, I think the mold piece is so critical to explore and absolutely rule out or address before we start chasing the Lyme microbes, I would say that the majority of people with chronic Lyme disease ultimately do find a mold component in their history.

And so I think that's really critical to look at and explore. There aren't any perfect tests. I think a good starting place is the Army or environmental Relative Maltiness index.

So companies like Miko Metrics or Enviro Biomarkers make those available. From Doctor Neil Nathan, I learned about some of the plates testing that can be done.

There's a company called Immuno LaTeX that you can put out some plates. I do think the Army is a great place to start.

Detoxification, Drainage, and Binders

The immuno latex plates can certainly be another way of looking at the potential for a problem. And then ultimately, if there is a problem, they're getting an IEP or indoor environmental professional to come out and do an inspection.

I think that can be very, very helpful. There are tests that are emerging in the urine mycotoxins realm. So I personally am a fan of the Great Plains.

Michael talks. I think that can be a phenomenal, test and tool for people. There there is some debate about whether or not the toxins that are seen in a test like that could be coming from the food that we're consuming.

But at a certain point, a certain level, in these tests, it's unlikely that it's from a food only source. And so I think that definitely is worth exploring.

And then once we identify the exposure, we either need to remediate it or find a new environment that is better supportive of our healing goals and health restoration.

So this is an area it is not easy. I often say that in the the shoemaker realm, I think the protocol is like 11 steps. This is step number one. But literally once you get past this, you're well beyond the halfway point in terms of the things that need to be done.

So air filtration devices can be helpful. They're not a solution to the problem. So I think you still need to look at what is the source of the cancer and get rid of it, before you start doing other things, very, very critical to explore the mold piece and then bringing in, there's various binders that can help with mold as well, some that are more specifically targeted to, dealing with mold, like the bio tox product from microbe Formulas.

I really like, Beyond Balance has a product called Toxins Bind and one called Pro Miko. That can be very helpful in

this realm as well. I'll talk to Sumi Supreme again. Coolest.

I mean, is one that that many people are familiar with. It can certainly be helpful. My observation has been that if someone is still getting an exposure, that polystyrene can be really, really helpful.

I do feel like in many cases, the natural options that have emerged, are quite adequate if you don't have an ongoing exposure. And then when we talk about the microbes, if you've been exposed to mold for a long period of time, you certainly have the potential for colonization.

So if you then were to fix your environment or move to another environment, where there is no mold, you could still have a micro toxin producing factory in your own body.

And so we have to think about is there the need potentially for some antifungals. And we'll talk a little more about that later. But that is a possibility from exposure long term to water damage.

Buildings. And then I think once we've got the mold piece ruled out, we really have made a significant step forward in terms of our overall setting, the stage for our healing process.

So, again, I think it's really critical if you're focused on Lyme, don't lose years of getting this piece explored because, there's just so much time that you can save by exploring the mold piece early on.

Then if we turn from the mold piece to the electromagnetic field piece, this is an issue that Doctor Clean Heart brought to my attention back in 2006.

At the time. And, most people were laughing at him about, his perspective on emfs. I don't think anyone's laughing anymore. This is certainly a, a stress that can drain our, vitality that can keep us in a cellular, sympathetic, dominant state that can minimize our ability to detoxify.

So things like turning off Wi-Fi, tossing out the cordless phone, sleeping in a Faraday cage, potentially, so many tools that can be considered turning off the circuit breakers at night, installing stents or filters.

Some people benefit from EMF protective clothing. I have done as many of those things as I can do, and I'm always looking for ways to consider EMF hygiene in my living environment.

It's most important, really, to think about in the sleeping location. So if someone's going to start with minimizing their electromagnetic field exposure, think about what can I do to minimize that in the sleep environment?

And one of the things that Doctor Klinger heart has also said for some time is that the electromagnetic fields that we are exposed to, they also cause molds to create more micro toxins, whether that's environmentally or also the organisms that are within us.

And so in his model, one of the ways to deal with water damage, building exposure, mold illness and so on is to turn off or to reduce your EMF in your environment.

So in the clean heart world, there is really no road back to health without considering the role of electromagnetic fields and really reducing those. So there's lots of ways to explore it.

You can get various meters and do some self-testing. I personally have done that, but then I also hired a building biologist to come out, make recommendations, talk about potential mitigation options.

I found that very, very helpful. And then another piece to consider is the EMF hypersensitivity can be associated with the heavy metal toxicity. And so one of the reasons that I put detox first before we talk about the EMF pieces, we want to really start that process of also reducing the heavy metals in the system.

So that we're then better able to tolerate the exposures to EMF in the environment that we can't necessarily avoid.

Gotcha, gotcha. Yeah. That is just so difficult.

It seems like with all that information for a patient to say, oh my gosh, where do I start? Assuming that we need to find a doctor who basically understands that to do the testing part?

I found this little petri dish. You get them on Amazon, you're going to put around your house actually can be very good. And, you know, send those off.

At least you you kind of have a sense. And it's interesting with this, you know five guys come in we won't get into that's a whole nother issue. As well as drilling down, you know, doing a lot of research on peptides.

And I was figuring out how do these die. And, the peptides, this, you know, two amino acids long, they can't find the receptor. But I found a couple papers that show their harmonic that they actually vibrate, and stimulate the cell.

And what is this 5G and all these MPs going to do with that vibrations and turn on, turn off, you know, who knows? But, that's such a critical part, of course, that we can talk for hours and hours on that.

But I think that was a great summary for that. And so let's go ahead and, move on to sleep. Yeah. So sleep everyone I think will be unique here in terms of the order.

But again, the EMF piece is one of the reasons that people experience insomnia. So looking at the EMF piece before focusing on sleep, because that may in fact be the reason that you're not sleeping.

Fortunately for me, sleep was never an issue throughout my entire health journey until about 18 months ago, I always slept well. And that was, that was a wonderful thing.

About 18 months ago, I started having some sleep issues. And so this has been an area that I have been exploring quite a bit. If we don't sleep, we don't heal optimally.

There's lots of supplements that people talk about melatonin, which I'm a huge fan of. I jokingly call it my drug of choice Gaba, five, ATP, all of these things.

It can be great, but I also think looking at things like what's happening with your blood sugar while you're sleeping now, we can fairly cheaply get continuous blood glucose monitors and see is your blood sugar dipping in the night, causing your cortisol to rise to get your blood sugar back up, that's worth exploring.

Things like weighted blankets, lots of tools that can really help from a more, parasympathetic perspective. Like brain tap is a system that I find can be very helpful for sleep.

There's something called the Zs sleep Pebble, which is a little device that you put under your pillow that puts out the frequencies that get the brain into a sleeping state.

That that I've been exploring over the last couple of months. I do track my sleep with an aura ring so I can get a sense for, you know, what am I changing that's leading to improvement?

Unfortunately, at this point, I'm to the place that I can get a crown almost every night, which is good, but I still am always working to optimize these things.

There's a new tool coming out called the Apollo system that I'm looking forward to as well that could be helpful in this realm, and it's essentially a band that you wear on your wrist or your ankle that vibrates at certain frequencies.

That can also help with things like torna fying, the parasympathetic nervous system, increasing sleep. It is supposed to arrive shortly and I'm looking forward to that.

So everything that we can do to improve our sleep will exponentially increase our overall healing potential. And I do

think that there are some peptides here that could also be worth exploring.

So things like Dr. Sippy or deep sleep inducing peptide epi Talon, potentially. I know you have a lot more experience with the peptides, but but sleep support is one of the areas where peptides can also be very helpful.

Yeah they agree. And we've found kind of the, you know, the delta sleep inducing peptide along with the pineal, peptides at battalion opinion and then some sort of growth hormone peptide like the a body which is a fragment of growth hormone or some of the growth hormone, cementing peptides or other human hormones CJC of them all and can sometimes be magical, usually takes a couple of weeks.

But, another big tool in the toolbox and we're talking about peptides here. And this can be dramatic for, for some people. But I think it's so many parts of the puzzle as, as you are saying.

And move on to the mental and emotional health and which are some people that just struggle with that. They just live in this, you know, hectic environment and family issues.

I think it's so much harder to get those patients better. Yeah, absolutely. I think most of us have probably had some emotional traumas or conflicts that set the stage for illness, and they don't have to necessarily be significant ones.

We may not even be consciously aware of them. Others, again, can be invalidated by the process of illness and and invalidated by the medical community, by their families.

That itself can create a trauma. Either way. I think we then have to explore this issue. So, accepting that we have these things doesn't mean that the illness is in our head.

It just means that the mental emotional health do play a role in the development and the ongoing continuation of physical illnesses. And so in the Lyme community, one of my observations has been that it's a very common pattern to see people that are type A overachiever, perfectionist personalities.

Many don't feel that they deserve to be. Well, I joke now that I'm a type A minus personality that's taken many, many years to go. I want to use that one.

So things like, you know, cultivating healthy relationships, eliminating toxic people, experiencing joy in every way we can. I think that really plays a key role.

And so we want to do things as well to not identify with an illness. It is a part of who we are, but it is not who we are. And if we identify with it and take it on, it will be more difficult to move past.

And so in Doctor Clean Hearts five levels of healing model. This is the third level. And so things that you can shift at the higher levels are very powerful interventions because they have downward causation and can influence the physical levels and other levels beneath it.

So tools that could be helpful in exploring here. And I've done most or all of these myself with various practitioners, things like eMDR, which is the eye movement desensitization technique, RPN or applied psycho neurobiology.

PCA or psycho kinesiology, EFT. Various tapping systems can be phenomenal, emotion code can be great, and if people are looking for a place to start. I'm a big fan of Amy Shearer's work, and she's got a book that she's put together called How to Heal Yourself When No One Else Can that that works on these mental emotional realms, but also uses lots of energy therapies to help release them from more of a cellular memory perspective from the body as well.

And so it's a phenomenal, very, self empowering tool to start exploring this mental emotional health arena. Great, great. And I think of especially of past trauma, they almost get hardwired that way.

And I think kind of I of this great analogy or, you know, things but like, you know, feral cat, you can take it in

immediately and hold. It's great. It's like a regular house cat.

But if they're out for a period time, they almost get hardwired. So I think it takes a lot longer to work through those issues when you have, you know, kind of a past.

Of course, the current, really you have to get out of that, which is very difficult. And but past really plays a part as well. What's it's going to the, the limbic system and retraining that and the parasympathetic system.

All these patients are just, you know, they're sympathetic overdrive fight or flight fear kind of based. And, I'm very interested in hearing what we have to say about that.

You know, the, the limbic system arena is one that I really just started exploring about two and a half years ago, I would say. And so, this is a step that could make sense earlier, potentially in, in the overall approach, sometimes early or sometimes later.

But the limbic system is the area of the brain that includes the hypothalamus, the hippocampus, the amygdala, the cingulate cortex. And so we think of this as the alarm center or the feeling and reacting brain.

Mold Exposure and EMF Stressors

And so it controls lots of different functions in the body, including the immune system, the endocrine system, including the autonomic nervous system, which is responsible for, you know, blood pressure and heart rate and breathing and digestion and so many different, downstream things that the limbic system influences.

And so lots of things can trigger limbic system impairment. This could be mold exposure, this could be Lyme disease, this could be a chemical exposure or a pesticide or a bacteria or a virus or, physical or mental or emotional trauma.

There's there's so many things that can trigger it. But if you think of a threat like mold or Lyme disease as a tiger, you generally don't want to do something around limbic system rebooting and DNR or dynamic neural retraining system is the one that I have the most personal experience with.

You don't want to do that when your tiger is still a tiger. You want to address the issue so that the mold now has been resolved or reduced. That the Lyme disease has been considered, that it's now essentially a kitten in your life, but your limbic system still sees it as a tiger.

So once you've addressed the tiger, you then use something like DNA to reboot the limbic system, to say, hey, this is really not the threat that you're perceiving.

You don't need to have that stress response. You don't need to trigger the adrenals to release cortisol, for example. And so there is a time when DNA is in fact, I would say of all the interventions that I've seen, the single intervention that's led people to highest ground most consistently is the knees.

But there's a place and a time for doing it. You don't want to do this if you're still living in your moldy house, for example. Generally speaking, and this inappropriate response of the limbic system can continue to hold us back by impacting our immune response and our hormones and all of these other things that create lots of symptoms in the body.

So I, I like to say that some people think of DNA as a mental, emotional tool, and yet it really is not. While it can be helpful for TSD, for example, it it is really more of a physical biochemical response in the limbic system.

And so, looking at the amygdala primarily the fear center, how do we get out of that trauma loop, so to speak. And so, I think it's a phenomenal tool.

There's other things in this realm that can really help, in terms of supporting the limbic system, in terms of

supporting the parasympathetic nervous system, we're generally not going to heal in a fight, flight or freeze or sympathetic dominant response.

We really have to calm the system to heal. So again, Brain Tap is one of the tools that I think is very, commonly helpful for people. Frequency specific microcurrent is another tool that can be helpful in terms of the limbic system, the parasympathetic tone ification, so that we can better rest, digest and detox, and even things like the ionic foot baths.

The one that I'm using actually uses frequencies to help support the parasite pathetic nervous system, which then supports better detoxification. Gotcha, gotcha I bought one, I won't mention the product, but to wear at night and made me so mad I threw it across the room.

It's the opposite effect. But, the deer did, dances. Is there practitioners around or centers around? So DNS is a system that was created by Annie Hopper after she herself was, living on a houseboat because she could no longer tolerate living in her home due to chemicals and emfs and all of these things.

And so she, makes this system available through a course that's available by DVD, that's available online, through a streaming service, and is also there's also a four day, in-person retreat, which is what I did, where you go and you have, you know, 30 other people that have had a similar experience.

I personally find their retreat to be incredibly powerful. There's an energy of that, that group healing experience that was phenomenal. But you can, learn it through DVDs and streaming as well.

Oh, great. Great. Thanks. Yeah, let's let's move on to I mean, all these are such, you know, vast areas and kind of immune modulation, which we've really kind of come to know in terms of diagnosis and treatment, which goes along with mast cells, you know, reducing inflammation.

And in that part of the, of the protocol. Yeah. So I think it's, I think it's so important to not think that the success criteria for health is to kill the bugs.

We really don't want to feel that we're in a battle or we're in a war, or we have to fight something in order to win. So it really is more about our response to a pathogen than the pathogen itself.

If the immune system is hyper active over reactive or responding in an autoimmune type fashion, that itself is creating a lot of inflammation and a lot of symptoms that we think of as disease.

It may not be the bug itself, but it's how we're responding to the bug. And so a lot of this inflammation can be driven by mast cell activation and by histamine intolerance.

This is an area that also can have many different triggers. So could be parasites, could be mold exposure Lyme environment toxins, emfs. In fact, Doctor Theo Theoharis, who's one of the primary researchers and voices in this realm, will say that mast cells are ten times more activated in the presence of a cell phone, which was shocking even to me.

Know, you know, knowing a lot about Emfs. I had not heard that before. So you hear I'm thinking of things like a low histamine diet, which can make a big difference for some people, not for everyone, but it's worth a trial.

Looking at what are some of the high histamine foods people are consuming? Are you eating avocados or are you eating bone broth? Do you have fermented foods or are you eating kombucha?

For many people, these are entirely the wrong foods and they are triggering mast cells and leading to more histamine and more inflammation and more symptoms.

And then I look at incorporating various mast still stabilizers, histamine reducers. People are familiar with things like quercetin or luteal and or holy basil.

There's a number of great products out there to, kind of calm the system from that perspective. But I do think that a lot of times when people incorporate the diet, the mast cell stabilizers, that they do notice a fairly significant shift in their symptoms because they've kind of drained the inflammatory bucket of the body, so to speak.

Looking at immune modulation then is important. So whether that's with low dose naltrexone or low dose immunotherapy or homeopathy can play a have a great role here as well.

Keeping in mind that getting well is not about boosting the immune system, which can actually make things worse. It's really about modulating, about calming, about integration with our microbiome.

And so this is also an area where I think peptides, certainly shine and play a very significant role. If we look at the th one two balance and you do phenomenal lectures on this, but, you know, we're thinking in chronic illness being more too dominant, more auto immune leaning, more inflammatory, more allergy, more mast cell activation.

The one arm of the immune system is what's managing the microbial burden. So if we're too dominant, we have all of these symptoms that are inflammatory and autoimmune meaning but we're not addressing the microbiome.

So looking at peptides like to one or thymus and alpha one thymus and beta four, I think those things have a role here in terms of immune modulation, reducing inflammation, reducing mast cell activation.

BPC 157 also in some people can be very helpful with mast cell activation. And so by working on this immune modulation piece, we're already starting to get the body engaged again to deal with the microbial overgrowth before we even think about killing bugs.

And I think this is really what we want to do is set the stage for the body to do what it was designed to do, because we, with our human brains, will never do it better than the way it was designed.

I can't agree more. And you know, the lectures I've talked about 22 to 17 and a lot of the old literature is wrong. You know, saying teach what is inflammatory, but actually ended up being 17.

But we have many people say, hey, my doctor checked everything, everything's normal and well, okay. Yeah we'll see.

Sleep, Emotional Health, and Limbic Retraining

And we really look at that immune system kind of as an overall marker, that balance of 22 to see how sick they are. I think the biggest thing that correlates with symptoms.

So I think that is key in the and the peptides can play a big part of that, that that's what we found. And then, moving on mitochondrial support, I think that's becoming, a huge part.

You know, there's no cellular energy and the regulation and, all that, if you can, mention a little bit about that. Yeah. So let me so I think we jumped ahead by one.

So just quickly to, to get into not forgetting the nutritional piece, the microbiome, the gut health, those types of things. So again, the immune system largely coming from the gut.

What I'm thinking about there is making sure that we're getting out all of the stressing inflammatory type foods that we're finding this nutritionally dense foods.

I I'm a big fan of having a daily power shake that has things like high quality protein, some college and a fiber blend, phospholipids, healthy fats, chia seeds, all of those things I think are fantastic.

I am a big fan here of mega spore biotic or spore based probiotics to support the microbiome. I find that they're generally well tolerated, even in people with mast cell activation or Sibo or those types of things.

And so this also in the gut arena is where I think BPC 157 certainly shines a lot. And it's worth exploring. And then when we think about step eight, which you, mentioned the mitochondrial piece hydration.

So on, this is an area, the mitochondrial piece that I've been aware of for many years. And people take CoQ10 and things like that. But I think just in the past year or so, I'm becoming more interested in the mitochondria.

How do we provide the body with the energy or ATP that it needs to move towards healing? And so things like red light therapy can be phenomenal. Things like various forms of NAD can be very helpful.

The one caution with the mitochondrial piece that I'm just still really understanding myself is that ATP is actually or extracellular ATP is the danger signal in Bob Nabi ALS cell danger response model.

And so I think when we start getting into supporting mitochondria, you know, you don't want to be too aggressive with it initially. And you also want to watch and see it may not be the right time for someone to have their mitochondria supported, but I do think it's a critical area to look at.

Hydration is another one. Seems like most people with chronic illness, if you look at their antidiuretic hormone, it's, very, very low. We drink water all day long.

Still are cellular, dehydrated. So what can we do? Can we use structured water? Can we use electrolytes, trace minerals, maybe just some sea salt in the water?

There's various homeopathic products that I really like, like rehydration from energetics. That can be very helpful. But finding something more than, just water, which for the most part is, is not going to be the hydration that we need on its own.

Looking at Cryptopia or Luria, where the body's peeing out zinc and B vitamins. If our immune system is low on zinc, for example. It's like an army with no bullets, as Doctor Klinger likes to put it.

And so that's an area to explore. There are tests that can be done for it. Supporting it is a relatively simple process, again, with the caveat of if you do it too quickly, you can create more problems.

And so a lot of these things, I think slow and low and gentle is the way to approach it. It's a marathon, not a sprint. And when we try to sprint towards, health recovery, we often run into a few brick walls here and there.

Coagulation. This is another area that I think honestly, is is under looked at, in the chronic illness arena, the, the test. I don't think a lot of practitioners really explore this, but looking at the potential for thickened blood or hyper viscosity and what that's doing in terms of these chronic illnesses, using various enzyme combinations like Bloomberg kinase or natto kinase.

There's certainly pharmaceuticals that people have explored as well, like heparin. That can be very helpful or lovin knocks, things like that. And then looking as well in this kind of supportive realm of, you know, do we need to support the adrenals potentially to, to be able to give someone some vitality and energy to kind of get better through their day?

So this this one is a little bit more of a grouping of several kind of supportive areas. But I do think that mitochondria, the hydration, the coagulation, all of those things are pieces of the puzzle that we don't want to miss exploring.

I'll totally agree. And just a few comments on that. You know, the gut brain axis is becoming you know, we're learning more and more and the, you know, your microbiome, but the viral biome also, you know, each bacteria has a virus connected to it, which there's more viral DNA than we have, bacterial DNA than we have human DNA.

But, you know, works through the parasympathetic, you know, the vagus nerve and the brain affects the gut. So it's a vicious cycle. And doing things to, support that.

In BPC 157 we're going to be adding TPV, which is a mylanta and peptide, which really reduce inflammation, heal those that leaky gut in that leaky gut really just kind of vicious.

There's a vicious cycle where so many things are, quiet elation. Yeah. You know, big fan of that and really seems to occur about we do the right tests 80 plus percent of people with these with these chronic illnesses.

And then mitochondrial dysfunction is there's so many theories of even aging and even, you know, neurodegenerative diseases and all. You know, so many studies have shown chronic fatigue syndrome, fibromyalgia, they have low mitochondria.

But, you know, you get like CoQ10, all these things can help. But it's very temporary. And there's some new, peptides coming out. Yeah. We're using, like five amino one m2, defects.

That actually they're finding that the antioxidants inside the mitochondria are too low, so it messes up that whole electron chain. So I think that's kind of going to be, you know, one of the new, you know, big emerging therapies for a lot of these illnesses.

We're getting, some benefits just very quickly with those. And I think for many, many diseases of aging and, and chronic illness. So, you know, it's kind of interesting how much we both love our toys and our toolbox here because I'm hearing you say some new things here.

And that's, certainly exciting to me as well. Yeah. And again, we could talk for hours and hours on each of these things, and then we go back to what would be normally they okay, what do you do to go after these bugs once you have all these other things set.

Immune Modulation and Mast Cell Support

And I agree to getting from point A to point B, we try to kill these bugs, but you're giving mass amounts of, you know, antibiotics or even herbals. There's no immune system. They don't kill it.

So your body can't take over. So basically you've got to get your immune system up because inflammation down get everything working better. You have a good chance to suppress these things.

And and, you know, make them so they're no longer a problem. Right. Reverse that that thinking. Yeah. So again I mean, I think the, I intentionally put this towards the end because I think if you start here, in most cases it's going to backfire or you might feel a little bit better, but it's probably going to be short lived that there's so many other pieces we need to do first to create longer term health stability and longer term health optimization.

And so once we really start supporting the body against these different pathogens, the order here could shift as well. So within this grouping there's kind of a different order in terms of how we might want to look at these.

But I generally think of viruses as being one of the early on things to explore. If we look at, how much people are affected by, you know, we hear about EBV and Harvey six and all of those things.

I've been surprised how many people are affected by herpes zoster. And not that they necessarily have shingles presentations, but that they have other strange things like hyper axis or, you know, things of that nature that, I think these viruses play a very big role.

And if you talk to, Doctor Kling Hart, over the last many years, he's been talking about these endogenous retroviruses, which, by the way, are activated and made worse because of all the electromagnetic fields in our environment.

So we're, not born with but conceived with retroviruses that are part of our DNA, that are now starting to stress the system in response to our environment.

And so I think that that's an area that has to really be explored as well. Lots of good herbal, homeopathic tools. Bio pure has a couple of great tools, systems.

T is one of the, interventions that really covers a lot of ground here in this viral and retroviral and even, Borelli, and fungi and various other things.

So, sistas, t is one of the tools that I incorporate into my routine as well. It can be very strong. I don't recommend people jump into the deep end of the pool with it, because they they will have some die off reactions in many cases.

Companies like Beyond Balance and Microbe Formulas have some great tools sulforaphane Pam to being selenium lysine. And again some of the homeopathic companies like energetics is one that has various, viral support products.

And then once we get the viral piece in place and I think that's then something we, you know, we do long term, I think the viruses actually play a very significant role in terms of our overall health and microbial burden.

Then I would generally shift to thinking about parasites, Sibo, dysbiosis in the gut. Parasites are so common. You don't have to leave the country. Testing is poor.

Sometimes doing various forms of energetic testing, whether that's device testing or muscle testing. There are a couple of labs like para wellness research with Doctor Rafael D'Angelo that I think can be very, very helpful.

But really exploring the, the gut, the GI map is another tool that I think is very good. So optimizing again, the, the microbiome, and depending on whether or not we're looking at larger parasites or smaller parasites like protozoa, Giardia, cryptosporidium, toxoplasmosis and so on, I generally think there are a number of good herbs and homeopathic that can be helpful, but there are cases where some of the pharmaceutical antiparasitic can also be very helpful, to combine in with a broader protocol.

And some of these parasite protocols can be, many months long Sibo or small intestinal bacterial overgrowth. I think this has become very common in the last five years or so.

I don't remember hearing much about it, prior to that. And now I hear about it all the time. And so I think generally speaking, the overgrowth of microbes is the result in Sibo and not the cause.

And I think we have to look upstream to things like, the migrating motor complex, like the bile flow, like the vagus nerve. So we may need to address some of the pathogens here, but there may be some other, upstream pieces in terms of Sibo as well.

And then lots of different herbal things, you know, Biocide and Magus for biotic, we talked about, for helping to balance the microbiome of the gut.

Gut Health, Mitochondria, and Supportive Therapies

And then I would move to thinking about the fungal colonization, potentially the the yeasts like Candida, or Candida, the, the various molds that we might have been exposed to.

And so do we then need to incorporate some antifungal strategy, keeping in mind that as you kill these fungal organisms, you are also potentially releasing metals into the body.

That's also true with parasites. So we also need to keep that detox focus going when we're working on this microbial reduction strategy. Lots of herbs and things that can be used.

Again, some people find that they, need pharmaceutical interventions here. Like it's is all for example. But I think over the years we've with a lot of these herbal companies, the beyond balances, the Byron White formulas, those

types of things.

I feel like we have some herbal, synergistic herbal formulas that are very, very supportive and don't necessarily need, as many of the pharmaceutical options as we might have.

When I started my own journey with Lyme disease 15 years ago, and then we get to finally Lyme and co-infections. But Bartonella, you know, things like mycoplasma, chlamydia and so on.

And again, there is a place and a time for antibodies, orthotics. Certainly, I think if someone is largely functional and they're they're uncomfortable, they're admittedly miserable.

But if they, you know, aren't in a wheelchair, they aren't having seizures every day. Those types of things, I think sometimes starting with the natural options is a good idea, keeping an open mind to the toolbox of other things.

But, I don't think that antibiotics are generally the solution that lead people back to long term health recovery. So lots of I'll agree with that. And that's, you know, kind of what this whole thing's about.

And and doing the SRT therapy, which antisense therapy which I won't get into too much is that we're tests we're finding a lot of people with even you know, they have HSV one herpes simplex virus one just for cold sores like, okay, how bad can that be?

It loves the brain, you know, and, it's interesting things like, 157 kills HSV one better than a cycle over one 100. That up the dose. Excuse me. Voice is gone.

But, and, I think that that is key. There's so many things and they're often negative on the blood test, but they're they're basically in the brain or finding like with Hashimoto's from six patients, it's all, you know, basically just in the, in the, in the thyroid, but it's not in the blood.

And talking about kind of all of the infection. Whereas one family that came from central, California, they, cheese farm, all in a family was sick and we had a microscope at the time and immunofluorescence antibody, which basically, sensitivity and specificity very high.

He was full of Borrelia. You could just see it. He felt fine. It was the rest of the family that that felt sick. So it really goes along with that? Yeah.

Yeah. So I think, you know, I think that kind of covers the, the, the thoughts around the microbial piece. I do think that that people may need to explore the biofilms.

You know, again, being somewhat open, for example, in the Lyme community now, there there have been a number of very positive experiences with something called disulfiram.

So, you know, I'm always open to tools that are going to minimize people's suffering and their struggle. I do really think this again, is a place where, the peptides have a phenomenal potential.

So the thymus ends that we talked about earlier, we were already doing the immune modulation piece. I know there's a number of others, like 37, for example, and some other newer ones that I'm sure you're aware of.

And so, definitely excited about seeing how the peptides continue to shift our response to the microbes in these chronic illnesses. Right, right. And yeah, we're we're running, short on time here.

Microbial Treatment and Regeneration

You want to mention just a brief line or two about kind of re regeneration and restoration as you get get through this and then. Yeah, sure. You bet. Yeah.

So I would say, you know, myself having gone through Lyme and mold illness, I think you get to a place where it's taken a certain toll on your body. So what are some of the things that we can consider from a regenerate or restoration perspective?

I really like phospholipids, like phosphate title choline, for example. I think that can be great. That's something I incorporate every day into a power shake.

But there are I. V., protocols, what's called the PK protocol. That can be helpful. I do think the peptides this is probably of all the steps. This is where the peptides really shine in terms of, repair or restoration.

Regeneration, things like photo, bio modulation, you know, using light to support our mitochondria and the restoration of our collagen. Vesper, which I've, been using as an exercise tool over the past year.

Plus, that's been phenomenal, which is, a cold compression bike type of setup that can really help with, regeneration and repair and personally had very, very great results with that, type of tool.

And then just in terms of final words, I would just say that, you know, people, should not lose hope. I think now more than ever, we understand. So many pieces of the puzzle and people really do, improve and get well and recover their lives and their health.

You mentioned the forum for Integrative Medicine and the introduction. So that is, a group that I'm involved with that puts on an annual conference for practitioners if they're interested in learning more about that and participating in those events.

The website is forum for Integrative medicine.org. And then I'm also involved in a nonprofit foundation called Limelight Foundation, where we provide treatment grants to children and young adults 25 and under for the treatment of Lyme disease.

And so at this point, we've given out over $5 million to grant recipients in 49 states. And if people are listening that either are in need of support for their treatment or people that are listening that would like to support an organization like that.

You can learn more at Limelight foundation.org. And again, just don't lose hope. Don't give up. So much is changing in our understanding of these complex, chronic conditions, and I feel more optimistic and hopeful now than ever in my 23 years of recovering my health.

And so there is hope and people do get better. Well, I think that's wonderful. I agree, Doug, don't lose hope. And it seems things are moving so much faster.

Finally, you know in this realm and people with hopefully a little more open mind and and looking deeper, I think standard medicines, everything moves so slow.

You know, this is where the action is. So I think amazing interview. An amazing amount of information. I really appreciate you being part of this. And, Yeah. Thank you.

I think it's going to a wealth of knowledge for, for so many patients. And I I'll say it again, don't lose hope. And look what Scott went through and, And look, look at him now, friend of mine called the reason Adonis. Now.

So, it's great he's the picture of health. So, again, thank you so much and appreciate you being part of the summit. Thank you. Doctor, all staff, it's an honor.