Introduction and guest background

Everyone. My name is Doctor Richard Horowitz. I am the co-host of the healing from Lyme Summit, and it's my great pleasure to introduce to you my other co-host, Doctor Maria Hinchey.

It's great to have you here today. Doctor Hinchey, for those of you who don't know her, she is a Connecticut licensed naturopathic physician. She's been Lyme literate for over ten years.

She's a certified medical acupuncturist, and she regularly lectures at Lyme disease conferences across the country, promoting education for both physicians and the public.

Unnatural Lyme disease treatments, and effective diagnosis and patient funding. Maria, thank you for being here today. We have a great topic, I guess one that you and I have both discussed over time, but I think you're using a bit more, and I think you're going to be convincing me today of the role of galectin three.

So we're going to be discussing today Lyme disease and pro-inflammatory cytokines and galectin three. And exactly what is galectin three. How does it calm the cytokine storm to heal from Lyme.

We're going to dive into that today. So Maria thank you for doing that today and and helping to educate all of us. Absolutely. It's my pleasure. And you know, again, thank you for that wonderful introduction.

So and I want to put out there that this interview is on on behalf of Ecco new genetics and Clinical Synergy. So, I use a lot of a substance called PAC, Tesol.

And the reason for that is because of a chemical called galectin three. So galectin three is a protein that is released when you have the onset of an injury or an infection or extreme stress.

And what happens is, is galectin three acts as, kind of a conductor of an orchestra. And so it recruits all of the different immune cells into the site of injury or infection.

And it kind of tells them what to do and how to do it. And then it signals this pro-inflammatory cytokines cascade that further causes a lot of the the damage and the dysfunction of the immune system that is seen in these infections, as well as causing most of the symptoms.

Right. So, I guess there's a lot of published studies on galectin three, right? I mean, I learned about it a couple of years ago, and I even remember when I was learning about it, it was actually part of the biofilms, right?

When they were talking about the structures, right, of the biofilms, which, of course, for me is becoming extremely important because of, the role that some combination therapy has played.

Can you talk a little bit about, like, apart from the inflammatory cytokines, the structure and how this all works, like, what why is this so important?

Like, for example, we know about NF kappa B inside the nucleus stimulate cytokines and the NRF two pathway and and LRP three inflammasome. So this in other words this is a whole nother structure.

Another pathway that may be causing some of this inflammation in line patients. Absolutely. And I'm going to come right back and talk about the biofilms.

But I think it's important to understand this affects every single cell of the body this galectin three. And it's a driver of cardiovascular disease a driver of cancer a driver of fibrosis.

It causes immune suppression. It causes biofilm formation. And not just the biofilms that we think of when we talk about Lyme and co-infections.

What galectin-3 does in inflammation

It causes, biofilm formation in the gut that various pathogenic and opportunistic bacteria use to evade the immune system, too. And so, you know, there's having elevated galectin three chronically can lead to autoimmune disease.

It increases, MMP nine, which is collagen Ace, which is one of the enzymes that breaks down collagen and helps to, you know, loosen the blood brain barrier as well as, you know, the the gut barrier and the tight junctions.

So there are so many negative effects of having chronically elevated galectin three. So like in a normal situation, you would injure yourself or have an infection.

The alarm goes off, it recruits the immune cells, you know, good inflammation would happen and then it all resolves and you return to health in a chronic elevation.

It's like the fire alarm that just never turns off. And so you have this perpetual overreaction of the immune system and very heavy driving inflammation, biofilm formation, etc..

So, you know, without having a diagram, it's a little hard to explain. But if you picture like a tumor or, you know, kind of like a, a five pronged, I'm thinking of, like, these little things that we had when I was a kid, and you could connect the straws to them, but, like, it's kind of like a little circle with five spokes.

And what happens is, is you have, like, individual spokes that when they become activated forms this summer and then these pantomimes kind of bind to each other and they form a lattice.

So if you can picture a lattice and that's kind of the backbone or the structure to the biofilm, which is kind of like this fort that these bacteria make to walled themselves off from the immune system.

And it's one of the reasons why these infections are so hard to get to with a lot of the therapies that we have, like certain antibiotics, herbs, etc..

So, you know, one of the main points of dealing with these infections is exposing them to the treatment that we're using. And in order to do that, one of the things that we have to do is break down those biofilms.

So so question for you because I am using biofilm agents all the time. I mean, we started using them a couple of years back when it started coming out from Johns Hopkins and Stanford.

And either Shopee's group that biofilms were playing a role in. I've mainly stuck with essential oils cinnamon, clove, oregano oil, biocide and, stevia, which she had shown from neutral medics, peppermint oil.

But you're saying, like, even just opening up the biofilms and using these, there's still might be a benefit in. And of course, I do check MMP nine in my patients.

For matrix metallic protease nine. And we see it in inflammatory joint disease with lime. So you're saying that this galectin three is specifically when I see an elevated MMP nine and or maybe I'm having a problem getting through the biofilm, even though we're opening it up, we might have affected the lattice correctly.

So it's kind of still there, allowing the biofilms to form like kind of understanding that correctly. Yeah, exactly. And promoting like the pathogen adhesion to them.

So even though let's say I guess I would look at it as kind of like a fort that maybe you have blown some holes in to, you know, using these other agents.

And I mean, I love proteolytic enzymes as well for breaking down biofilms, but it's kind of like you can make these holes in there. But I kind of picture, for example, with my I'm like a spy rookie, kind of like, you know, maybe stuck underneath that lattice part that still formed.

And then another thing for me is like, oh my gosh, there's so many things that these patients have to take. And so I like to, you know, sorry for the analogy, but I want to kill as many birds with one stone as possible.

And what you're all going to learn is that there are like seven main things. And they are seven very important things that we want to do when we're tackling any of these vector borne diseases.

And it's amazing. Like this, this practice, all can actually hit all seven of these things. So again, I try to put my patients on the least amount of things possible, always, as opposed to myself, who loves to put them on 70 different supplements at once and then tell them, oh, I take them every day.

What's what's the big deal? I'm swallowing 40 in the morning, 30 in the afternoon. Oh, you actually prefer the minimalist approach? Oh, I say oh well, but so if you asked any of my patients, they're probably on 20 things.

So, you know, but it's 20 instead of 30 right now. No question. Have you ever done yourself, a comparison trial because I have used specter. So I've used them in the past.

And I, you know, just had to be careful with some of the patients where, you know, Hertz is or mast cell activation from citrus, etc.. But you and I were discussing before we came on that the risk benefit, the benefit actually seems to be much higher in some of these people that are even sensitive to it.

Can you talk a little bit about like, have you tried different combinations like you've given the picture? So we'll see, you know, to address the galectin three with or without the other biofilms.

Have you seen larger hoaxes like have you tried that yourself a little bit as a naturopath to see what happens? So here's what I would say.

Galectin-3, biofilms, and immune dysfunction

I started using practice all with a with some of my patients, I'm going to say probably five years ago. And I mean, obviously I was successful with what I was doing.

You know, prior to adding practice all in. But what I will say is that and I and clinical synergy actually helped me to kind of like analyze the data back then.

There was nothing formal, you know, I have nothing formal. But what I would say is that I noticed a quicker turnaround in the, you know, or the speed in which my patients were resolving their symptoms or decreasing the, the frequency and or severity of their symptoms.

Practice all is something that I will put my patients on in the beginning. So I kind of have like these stages. So like, you know, I will go through micronutrients, food sensitivities, kind of like gut analysis.

And I get an idea of how bad their gut is because in my opinion, if they have severe leaky gut, they're going to hawks like crazy because they're just going to be re absorbing all of the toxins back into their systemic circulation, increasing inflammation, increasing oxidative stress, stress cell damage, etc..

And so I'm putting people on the practice all see, because it's been studied and shown that it will bind the LPs anywhere in the body. And I'll talk about the technology and why, but specifically the LP as that is along the tight junctions and it helps to decrease gut inflammation and it helps to heal the tight junctions, which can help the patients more effectively detoxify.

And so, you know, I'll I'll just talk about it right now. So the practice all binds heavy metals specifically arsenic,

cadmium lead mercury. Right. And we know that heavy metals can be incorporated into these biofilms.

It helps to decrease fibrosis and enhance healthy collagen production everywhere in the body from, you know, the blood vessels to the ligaments and tendons and joints.

It helps to increase natural killer cells in a dose dependent, relation. It helps to break down biofilms. Like I just said, trying to think what else?

Oh, it decreases interleukin six and interleukin one beta two with the big cytokines you know, that are more downstream in this infection. And then it's also a weak binder, like I said, for the LPs as well as, mycotoxins.

So it does a lot. And I feel like my patients go through less heart, sing and less severe heart sing when I get them on this first before I put them on any sort of killing regime.

So we actually I mean, I made something called Hrc's formula, which is a combination of stimulants, Glazebrook cleavers and high dose molybdenum because my patients were hurting so severely and it was such an issue.

And I would say the one thing that I've really seen change in my practice that I can see hands down, is I hardly recommend the Hrc's formula any more, because I don't have to sense bringing this pack to salt in, you know, in the beginning stages of treating.

So I don't know if that answered your question, but no, it doesn't. It was reminding me, you know, I was when I was learning about you, reminding me actually, when I was learning about two and three years ago, I, I love mathematics and I was remembering doing the Abcde, you know, f and it was like a autoimmunity and B biofilms and C it actually has a role in cardiovascular disease.

And I declined to be I said and cytokines and cytokines and he was diabetes. Now remembering actually the mimic and F was fibrosis. And it was like, oh yeah.

This is like it's a cool product. So question about the leaky gut going through this piece by piece. So I've been using bovine immunoglobulins I mean just different brands out there.

SBI protect Mega IgG. There's a bunch of them to heal the leaky gut. And it helps with the tight junctions. I've seen the studies on it. Are you using these in combination with it?

Because it's fascinating. You know, you're right. The LPs effect of binding in in the gut, it's it's a big deal for some patients who have severely cut. God.

If we find leaky gut in the vast majority of everyone, we're we're checking at this point. Are you using them together? And finding maybe better effects?

Yeah, because I, I'm an alchemist by nature, by the way. I love combining. You know me well enough. By now you'll know this, but I love combining these things to try and get, you know, better effects.

Have you tried combining them or you just use it alone at this point for it? So I would say almost every patient, I mean, I'm going to go out on a limb and say any patient that doesn't have some sort of intolerance to it is on the pack to us all.

Now, I would say maybe 15% are on a species. And again, I'm trying to go to the thing that I feel is going to have, you know, farther reaching effects.

And so SB eyes are great. And for patients that I would say are more severe for lack of a better word, or maybe have more severe dysbiosis, I will add the SB in for sure.

Great. And also for these people with Candida because Candida also right has backbones and biofilms. So a lot of

these people that may develop candidiasis and have a problem with it, you know these doctors that are just using nystatin or fluconazole or, or natural things, berberine breeding, whatever the problem is the candidate under biofilm also. Right.

So that also may be a place with the galectin three for the gut. Like if you're dealing with leaky gut and candidiasis which often go together. So you're using it in that population. Also.

Absolutely. And then, you know, part of my protocol too, I think it was Tom Moorcroft put it in front of me. A couple studies about grapefruit seed extract, like over a decade ago, and how it agitated the round body or cyst form of the A, and so I use grapefruit seed extract because I primarily use herbs and, you know, to accomplish that.

But then also, I mean, grapefruit seed extract is one of my favorite antifungals. So it's kind of like that's doing a dual purpose. So using the G three I'm breaking down the biofilm using the grapefruit seed extract as an antifungal I find to be extremely effective even in patients that don't necessarily have fungal overgrowth in the beginning.

But, you know, even like herbs are going even though I think they have a less effect on the gut microbiome, you know, being on a lot of these killing herbs for long periods of time, I do think that it chips away at the microbiome over time.

And so it's important to make sure that we're not getting into the state of dysbiosis. Question about the heavy metals, because again, we're we're finding the heavy metals in a lot of our patients.

We screen them in the blood because, the health departments don't love just doing a six hour urine DMZ challenge and, and chelating. So they usually want blood or hair.

And we'll find it if we look hard enough. You know, it's a little bit tough sometimes with some of these patients whose detox pathways are, are affected.

I just had one actually, today. Who, she was loaded with mold and was upping actually her charcoal and clay, which is detox and was really getting sick because her detox pathways couldn't handle it.

Using modified citrus pectin in Lyme care

Do you find, for example, it's more gentle, affect with the coloration, like, have you actually measured, combining, you know, some of the natural things you can use for metals or using this alone for metals and seeing what the effect is, how how do you measure it in your practice?

Because you said earlier, there are 8000 published studies, you know, on this with galectin three. So do you have you seen this in clinical practice yourself?

So as far as like galectin three itself, it's something that you can order through Quest or Lab course. So you can get an overall galectin three level.

And then you can kind of gauge like is this an issue? You know, for this patient or not. And when I first started using it I was doing that all the time because I mean, let's face it, it's an expensive product and I don't want to use something that isn't necessary.

And I was seeing a lot of elevated galectin three, and then I was seeing it normalize, you know, after so many months. And then we would retest it. So I didn't realize.

I didn't realize you could do a blood test. I mean, the MMP nine is something I kind of do all the time, but I didn't realize you could actually check the galectin three in the blood.

Yeah, yeah. Interesting. Yeah. And it's nice for that. It's actually something for people who are listening. That is one way to actually to figure out, right, whether the picture.

So it might be something right that you want to integrate in there, especially a lot of these really sensitive people with severe cases. And and it sounds to me like and the woman I spoke to this morning, we talked about smile x red root bone set.

You you were mentioning smile earlier separately. I use these all the time, but she was still kissing like crazy. And now I'm taking this actually, might be really interesting, you know, to try it.

Because you also ended up with leaky gut when we tested her. Right? Right. And so, you know, patients that have extreme leaky got I'll take a month or two, you know, if they're a chronic patient, which most of mine are.

And I guess try to, you know, the analogy that I use, and I'm sure you have too many people do. So it's kind of like when they come in the buckets overflowing and it's like, we want to like, stop the bucket from overflowing and just bring the water line down as much as we can by working on the gut, you know, eliminating food sensitivities, eliminating sugar and processed food and, you know, trying to deal with any sort of like, opportunistic, you know, infections that we can see.

And it's like, as much as you can do without really getting to like those infections that are causing massive inflammation. But it's like, you know, if you can create tolerance because when you start killing things, the water line is going to go back up because of the LPs and the resulting inflammation, you know, and all of that.

So I'm kind of like, if we can make a little bit of room, you know what I mean? The patient will be able to tolerate the treatment a lot better. And by that I mean have less severe and less frequent harvesting.

Right. And, you know, I think this is important because I think that's a lot of the problem with the line patients. They are afraid sometimes of doing even the treatments that I'm doing because the horses are, you know, are extremely severe.

So can you talk a little bit about more like what is the naturopathy like approach, for example? Like I will sometimes use for kind of drainage remedies, right.

If I feel like I need a little bit of lymphatic drainage or, the EPO hep pad, right, or the rental elixir, some of these to be able to detoxify. But it sounds like you're approaching this from several different perspectives.

So how do you approach this in the really sensitive light patient. What what is kind of talking about her cancer treatment in general? Well, working in this sense and how you're integrating the product into those patients. Sure.

So again, I guess I try to kind of pre assess that like the worse condition somebody's got is in, the more severe their heart is going to be. So and part of this I learned from you.

So you know when you're seeing what's really happening you're driving an inflammatory cytokines response because of the toll like four receptor. You're typically going into, you know a very acidic state.

And so you know the the two main points well. And then you have like, you know, oxidative stress. So three main points are deal with the acidity, deal with the inflammatory cytokines cascade.

And you know get antioxidants in there. Right. So we have that. But then we also have okay detox we need to bind the LPs. The fragments of the cell wall from the bacteria that we are killing.

We need to bind them, stop them from getting reabsorbed into systemic circulation. And eliminate them from the body. So I know that, you know, you talk a lot about Alka seltzer gold with lemon water, minerals, using glutathione and acetylcysteine.

But to answer your question, like taking a step back, like from a naturopathy perspective, I guess, you know, it's kind of like doing all this background work where, you know, okay, so for detoxification, all of the things that you need for phase one, all of the things that you need for phase two, do they have genetic snips like what is going on?

One of my favorite things to do is a micronutrient panel. And I look at the white blood cells so that I can tell what's in the cell, not just what's floating around in the bloodstream, because a lot of those nutrients that you need and a lot of like the detox biochemistry is like it's inside of the cell.

So I go through and I look at what they're deficient in. And then we spend the first 4 to 6 weeks replenishing all of those deficient micro nutrients.

I've had several patients lately who have had like B12 levels off the chart in their serum, and then their white blood cell levels are completely deficient.

So it's kind of like we can't just rely a lot on what's in the serum, because that only tells us what got, you know, from the tube that's really outside of the body into the bloodstream.

It doesn't tell us what got from the bloodstream into the cell, which is where most of our processes happen. Right. So this is similar to when I'm checking red blood cell minerals like RBC.

Magnesium is where 99% of the magnesium is located. You only do serum magnesium. You're missing the majority. Same with red blood cell copper and zinc.

So you're saying it's pretty much the same when you're doing it. By the way, which functional medicine labs do you like? When you're doing the micronutrient.

So for the only two that I know of that do white blood cell. But I'm also one of those people that like when I find something that works, I'm kind of like, you know, I don't pay attention to the new things.

So I know about Spectra Cell, and I know about vibrance. And I typically I'm using, I would say almost exclusively vibrant America's micronutrient panel.

Got it. Okay. Now that's important. I think it's good for people to listen to you because when you have an important point like that, it's like, well, great.

But, you know, where do I where do I go? Right. Because, you know, there's there's doctors data and, you know, then, you know, you know, all these other labs that are out there.

So that's great to know. Right. Good. So it's it's spectrum and it's vibrant that you're mainly using grape. So so again you're talking about these very sensitive patients binding the LPs.

By the way, you are convincing me I told you early on in this because I have used this before. And then I, you know, I started having some sensitive patients, and I don't think I was tending to use it as much.

And I'm realizing now this is why, by the way, it's always great when we talk to each other and communicate is health care. It's like, okay, some of these people with bad leaky gut with the LPs may be playing a role.

I've got to reintegrate this in some of these people. Like the woman I spoke to today was a Hertz queen. I mean, she was complaining of horrible chest pain and shortness of breath and anxiety and brain fog and huge dizziness.

And she just had started the daptone just with Doxy. Rifampin had not even gotten to DAP, shown to present nothing. It was like the minute we were opening biofilms and starting to hit the bug, she was hurting like crazy.

Leaky gut, detox support, and heavy metals

And by the way, this is despite being on blocking NF Kappa B with NAC Alpha like point castor glute stimulating Nrf2 with curcumin and complex sulforaphane, glucosinolates, resveratrol, green tea, using low dose naltrexone, using low dose melatonin to block at all three and four times.

I was doing everything I could to detox and she was still hurting like crazy. And she had leaky gotten. It's like how interesting that the patient I spoke to today, it almost sounds exactly what you're discussing.

It's like, okay, it's a trick I used that I have to remind myself, this is something for these really sensitive patients, for the LPs, and to see if we can get them through the purchases and buying these.

Yeah. And I mean, one of the reasons why I like packed a solids, well, is that it's a weak binder. Right. So we have so many binders out there. And when we're dealing with a chronic patient and we're going to have someone on these things for several months, it makes me personally nervous.

And I know other practitioners will disagree with me, but I feel like if I'm going to be using something chronically, I want to stick to the weaker binders because they're not going to bind the nutrients, and they're not going to bind all of the supplements and the things that we're trying to give them.

And I mean, you know, patients say, my God, it's a full time job just to take all this stuff all day long. And if you have, you know, activated charcoal and bentonite clay.

And again, I'm not saying there's anything wrong with using them. I personally reserve them for extreme her mixing and I'll use them intermittently or like if I have to use something like activated charcoal for orca toxin.

Right. Because it's the only natural binder for it. Like that's different. But generally speaking, I love the practice all because it's a weak binder and I don't have to worry about it binding their nutrients or the things that I'm trying to give them to treat them.

And then I would say my second favorite, not that we're talking about this, but I love chlorella because it's also our colonizing right. And what is hexes acidifying.

So chlorella is alkaline izing. But Chlorella is also a good binder to for a lot of things. But it doesn't bind our nutrients. Right. So so in these mole patients and I'm sure you're seeing as many as I am these days, I mean, I am forced to use, charcoal and bentonite clay, whether it's Thai detox or Barton Y detox to whatever.

Which one I'm using. And for the tobacco thickens. I've got to use up defibrillation or glucagon and whatever your type is, usually those have to be taken, those binders like, the fiber for the binding, the tri code thickens has to be at least an hour away.

The charcoal clay, which I detox has to be two hours away. Do you have to you have to pay the same attention to the binders when you're using, the practice oxy, as far as, like at least an hour away, you don't really have to worry about it.

No. So the way that I dose it is at least 15 minutes before meals. And that seems to work. Well, another reason why I love it is I actually so I, I believe so much that it doesn't bind the nutrients that I actually put the herbal tinctures that I use into it.

So I use a powdered form that, tastes like lime. I joke and say it's the only thing that I have in my practice that tastes good, and it really is, other than, like, research nutritionals, orange flavored, good iron.

Everything else tastes terrible. And so it's, I kind of like the optics lens guy from Zimmerman. I actually their, their protein shake with the guy for gastric, hepatic, intestinal.

I've used it for a year. When I was healing my leaky gut. I was having one of those shakes a day, and I tell people, you don't want to swallow all the gazillion supplements, throw them in there in a blender with ice and frozen blue.

So yeah, you're right, though most of them don't taste that great. But I'd say the after cleanse probably. I've gotten away with okay. But no, it's it's a good point.

And I've tried the pictures on myself because I have tried it before. So have you tried the lime flavored one? No, I actually haven't. Yeah, that's so that's the one that I use, and I use that one so that it masks the flavor or the the bitterness, the the nastiness of how all of the herbs taste.

So we joke if it's an adult, it's a lime or raita, and if it's a kid, it's limeade. And that's really kind of what it tastes like. And you're, you're, you're dosing it how many times a day on the average.

So I do for an adult, one scoop three times a day. And for a kid, again, depending on how much they weigh, you know, typically it's about a half a scoop, okay, which is about a teaspoon.

Okay. So and again, the good news is no matter what they're taking, it sounds like you're doing it before meals. But it sounds like you pretty much can integrate this into most of the protocols without having to worry about it binding other things.

Exactly. Yeah. Right. Great. So let's go through this again because this was this actually was quite important. So we're talking about binding to heavy metals, detoxifying other toxins LPs.

Right. Working on the lattice. Right. To break up that fiber lattice that's necessary for the biofilms. You know what's interesting? And now that I'm thinking of this, somebody really should be doing a study of combining these things and looking at them because the biofilms have become so important.

You know, before I even put people on some of the antibiotics I'm using, I'll have them try the biofilm agents. I see some uteruses in some of these people.

The minute the biofilms are open and your immune system starts to recognize it. But I had not considered actually binding LPs at that point when they're having the hooks is thinking, okay, you know, apart from working the phase one, phase two detoxing, you know, maybe lymphatic drainage and everything else.

Yeah. This is something it sounds like really would be a good addition. So the people that have mast cell that are sensitive to citrus because it is for some people a problem.

How sensitive do you see these people be to the to the citrus product. Is that a little bit most people can tolerate it. What's the issue with it, if any?

So I'll answer that in kind of a roundabout way. So I have had a couple patients come in who have had idiopathic hives where they've come in on seriously handfuls of various ways of, of blocking histamine.

And they still have had to tell hives. Okay. So clearly like raging mast cell activation, also positive for for tick borne disease. Right. And I'm just gonna make this very simple.

I have two patients that I'm picturing in my head. Both of them are on practice. All both of them tolerate it wonderfully. And neither of them get hives anymore.

One of them is also almost completely off of all of their, like, antihistamine sort of drugs as well, and still does not get hives after having hives for seven years straight.

No one figuring out why the person had hives. So what do you think is the mechanism? Because obviously we see a lot of mast cell activation, whether it's from mold or, what you, Dempsey, would call PIM cause pathogen induced mast cell activation for Lyme. Yes.

Why do you think it's helping? Because I mean, obviously, we are seeing when I measure, histamine trip days, Cro-Magnon and a prostaglandin D2. I measured the mast cells we are finding some of just today.

Earlier, I found a huge chromic and a and one of these patients. Why do you think they don't? They do as well because a lot of my patients, they've got to be on an H1, H2 blocker.

They've got to be on, you know, Seroquel or has to call from Research Nutritionals with, you know, quercetin. They need a boatload of stuff for the mast cell.

You're saying some of these patients, actually you can kind of drive them on a simpler pathway? Why do you think that is? So I mean, let me be thorough with my answer, but still simple.

So I would so first of all, like this one gentleman that I'm talking about, seven years idiopathic hives, no one could figure out what was going on. So he, he had, or has the BRCA Bartonella, Borrelia, right.

He he has all of that. No one had known that the three BS that pretty much everybody has these days. Right. So you know, and he came in on all of these antihistamines and his Claritin and, you know, all of this stuff.

Mast cell activation and sensitive patients

Right. So, you know, I took my functional medicine approach and my approach to, you know, to healing the body from these infections. Using Pac de Sol is one of the things.

But like I also put him on quercetin and I put him on, you know, all of the things. Right? And I put him on high dose vitamin C with bio flavonoids to try to stabilize the mast.

So I also took him off all of the foods that he had, IGA and IgG and IgG reactions too. So it's like it's not just the one thing, it's it's the whole, you know, huge individualized approach.

But I would say in my head what I think is going on is that clearly the infections were driving mast cell activation syndrome. And so to me, in my very simplistic way of looking at things, okay, so that increases histamine and it increases the inflammatory cytokines.

Right. Which is going to lead to oxidative stress, cell damage dysfunction, etc., etc.. And it's that big giant ball of wax. So to me it's kind of like these infections were the driving force of the mast cell activation syndrome.

But they had also created underlying, other underlying causes like leaky gut, food sensitivities, accelerated granulation of the mast cell, all of the stuff.

So it's like, you know, once we got a year, maybe a year and a half into his treatment and he no longer was having any hives at all, I mean, from thousands of hives on his body.

We were able to then start decreasing the histamine blockers while continuing to, like, shrink the infection and do all of the other things. And like getting to the point of your question is that I feel like the benefits of the pack dissolve because of the way that it helps to heal the gut, decrease interleukin six and interleukin one beta, which are two of the inflammatory cytokines that are seen in mast cell activation.

Be able to bind the LPs. You know, all of those benefits of the pack de Sol, I think, outweighed like the little risk that, okay, citrus contains histamine and citric acid can also drive histamine.

So I just feel like it's kind of like with every other therapy or thing that we would look at in medicine, like in these instances, because you're getting all of these benefits from the pack to Sol, they're offsetting that little bit of like exacerbation that you might see with citrus or citric acid.

Right. And and you might start in someone who's sensitive that way because you're obviously feeling the benefits way outweigh the risks you're talking about.

Maybe instead of a full scoop in a highly sensitive patient, like a quarter scoop or an eighth like, start very low and maybe work them up. Have you had to do that in some of your highly sensitive patients?

Yeah. Yep. Yes. And one of those patients that comes in and says I can't take anything. I reacted to everything. I

can't smell things, I can't, you know, I have light sensitivity, sound sensitivity, smell, chemical touch, all of that.

You know, you know that there just going to be one of those patients that you have to kind of go low and slow with right now, which is against my nature, because I like to throw the whole kitchen sink.

And I like to, to just get people feeling better so that I don't lose them because these patients, as you know, they've been through the wringer and they have a short attention span.

But the time we get our hands on that. Yeah. Do you want to just speak a little bit because we're, you know, we're starting to get to, to the close of it.

But can you talk a little bit? Not all modified citrus pectin is equal, right? You're you're choosing this particular brand. And by the way, Doctor Isaac Elias did contact me years ago.

He's the one who taught me about this. And so, yes. So obviously we've all learned from him on this, but, explain why you're mainly using this one, because they're not all created equal, are they?

They're not. And so citrus pectin in general would be a fiber that's not absorbable at all. It would stick in the gut. It would act as the binder piece, but you would poop it out.

Basically. So pack this all goes through this, this process, this enzymatic process that decreases its molecular weight. And so it's reduced to 3 to 15 killer daltons, and then it's less than 10%, aster fication.

And really, what this means is that it's made small enough that it can actually be absorbed into the bloodstream. So it's not just working in the gut, it's getting into systemic circulation and and doing all of these actions inside of your body.

No, that's that's great. No it's you know, it's you're reminding me now with this, it's like this actually in these really, really sensitive patients where I mean I'm able to control the is in many of these patients and push them through.

But it's like, yeah, this is something that should be used. And by the way, the same cytokines you were mentioning, a lot of these are also overlapping the long Covid patients.

We just got back one of Bruce Patterson's, cytokine panels today. Whether CCL five rentals was ideal for was I I or six can be high in it. BGF it's the same cytokines they're seeing also in in long Covid.

That's why by the way why new to use Bluetooth on in Covid early on. Because I looked at the cytokines being produced and it was like hold on. Those are the same inflammatory cytokines we're seeing with her kind of reactions.

So yeah, the sounds like actually, yeah. Between the healing of the gut and affecting the biofilms and affecting the inflammation, this is definitely sounds like something that, definitely should be integrated.

And I'm going to reintegrate it, actually, now that, you know, we've spoken and that's why I thought this is really going to be a great reminder. Because I said to you before we started today, come on, Maria, convince me of this because, you know, I did use it years ago.

And I'm trying to remember, I think it was a few Marcell sensitive patients. And then, you know, you go in other places, but it's like getting back to baseline.

Reminded me of the science that, you know, you've done a great job today. It's like, yeah, this absolutely makes sense. Going back to the biofilms and the fibrosis and the autoimmunity and the leaky gut and, the fact that it's binding, you know, LPs and taking down some of those inflammatory cytokines while working on the lattice at the same time, it's like, binding metals binding.

It's like. Right. So, yeah, it's it's got a nice broad spectrum. I would just say now, I think the way I would do it in my sensitive patients is probably just start at lower doses and start smaller.

Because I remember when, you know, I if I eat too much citrus myself, my, my wife's favorite comment for me is, affectionately that I'm itchy Richie. Basically, because she can take her fingernail and write, you know, my name on my back, and it'll come up in about eight seconds because I'm so sensitive.

And, you know, at this point, my allergic rhinitis and my asthma, it's not even an issue because I've learned to control the histamine and, you know, get it under control by avoiding certain foods and healing my gut.

By the way, healing the leaky gut for me was essential for this. So, Yeah. No, this is a this has been a great reminder, of why, you know, Peck, to see why this particular brand, it's got thousands of published references on it.

Yeah, it's it's a great reminder for people out there. I'm. I'm glad we have this conversation today. And anything else you think that we've left off of the conversation that people should know about the way you use it or, and I will measure now, galectin three, by the way.

And while apart from doing the MMP nine, I'd forgotten you can do it. And by the way, so if it's hi, it's like, there you are. You know, you've automatically kind of kind of a doorway of saying this is a patient who may benefit from it.

Right? So I would say two things. Number one is that, there's a lot of studies showing galectin three and Covid and long Covid. So that's just it's important.

Long COVID, chronic inflammation, and closing remarks

It's something important to investigate. And there's definitely a role for practice all in resolving a long Covid or a very severe acute case of Covid.

And that's published literature. That is out there. And then I would say, Forgot what my second point was. Oh, well, I'll leave you with that. You should investigate.

Yes. Okay. No, it's important because, I mean, when I just did an overview of long Covid, we just submitted a new article in the medical literature about a week and a half ago.

It's in peer review right now. I address the long Covid because, I'm in the process of, you know, looking at writing my third book and I decided I was going to take a lot of these chronic diseases and break it down according to the emergence model.

And I looked at long Covid. All 16 points on the since model have now been published associated with long Covid. So, you know, I it may play a role, of course, because inflammation is driving a lot of this.

But of course, to be clear on this, I mean, a lot of these patients develop plots to sort of Nami, their adrenals can be low, their microbiome is thrown off, they reactivate infections.

I can't tell you how many Epstein-Barr virus reactivation and have six reactivation, as I've now seen in my chronic Lyme patients after they've gotten Covid.

I mean, I used to check it years ago. I'm checking it routinely. Just today, two of them came back positive. So the long Covid, actually, it's kind of an overlap.

But what you're saying is, is they did publish that some of the inflammatory response. Right. Can be addressed with it. Obviously dealing with this autonomy and brain fog.

I mean, they're still, they're looking at different ways of still dealing with it. We still find in some of these patients, they do respond to high dose glutathione the way they do with Lyme, with Hawks's.

But I think there's a lot of the mechanisms they're still working out. But it's good to know that for those people out there listening, this is actually something you may want to consider in your arsenal.

Not just for chronic Lyme, but for many of these inflammatory diseases like, like long-covid. So, yeah. No. Remember what my second point was? My second point, you know, we were having a conversation earlier in a, in an interview today and it was like, okay, well what do you do?

What do you know? What about a patient who has tick borne disease? They're testing positive, but like they don't have a ton of symptoms. And it's like, okay, well we all know that these are inflammatory infections right?

So they create inflammation and they live off of basically the you know, the results of those chemical messengers of inflammation and collagen is a perfect example.

Right. So MMP nine breaks down the collagen feeds aspire key. So it's it's interesting right. There's not a lot that a professionals agree on. But I would say the one big thing is that pretty much all chronic disease starts with inflammation right. Yes.

So if you look at how packed a Sol is able to affect almost every single chronic disease that's out there, whether it's cardiovascular disease or it's diabetes, you know, what's the common denominator.

Right. It's all the inflammation. And these are all and by the way these are all published. You said there's thousands of peer review articles. There's 8000. Yeah.

And and it's all aspects of health. I mean there's a lot of studies on prostate cancer and breast cancer, you know, as well as cardiovascular disease, other metabolic diseases, fibrosis.

I mean, there's there's a ton that's great. That's great. This is wonderful. I think, very convincing. Really excellent. Kind of review of the scientific literature to explain to people.

And, you know, I was hoping when I was co-hosting this, you know, it's not just about sharing with people, obviously, what I'm doing and what you're doing, but learning from each other, right?

I mean, that's the beauty of this is we all learn from each other and and sometimes things we used years ago that we get to come back to and it's like, oh yeah, that's right.

Doctor, he, he had taught me about this and I started using it. It's like now that I'm so being at the biofilms and realizing how important it is with the rest of it, it's like, I got to go back and I have to try this.

So, yeah, I've got to look at the pictures. I'll see, and the modified citrus pectin and start using it in some of these really inflammatory patients.

I think you did a great job. And, thank you for sharing all this information today. Thank you. Yeah. So, for those of you who've been tuning in, I've been co-hosting you speaking to Doctor Richard Horowitz and my co-host, Doctor Mariah Hinchey.

We are both co-hosting the healing from Lyme Summit. And you're hearing today about the role of galectin three and inflammation and the role of modified citrus pectin and pectoral. See, great talk.

I think people are going to get a lot out of this. And thank you again for joining me. We've been really doing some having some amazing interviews with people.

I think the Lyme community is just going to go wild when they realize that we've had some fabulous interviews with some real great experts. So, thank you for sharing this.

I think this is really going to be a key thing that's going to help people. And, I hope you have a great weekend and

that things go well. So thank you so much.

Thank you. Take care everyone. Okay. Bye bye everyone. Hope to see you for another Lyme summit very soon.