Hidden Sources Of Neuroinflammation And How They Are Connected To Mental Health Transcript

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Introduction to Vibrant and the Summit

– Hey everybody Dr. Diane here again. Welcome to another episode on our microbes and mental health summit. I'm so excited about our next speaker. Dr. Kim Bruno, she's part of vibrant America vibrant wellness company and they are my favorite lab company on the market. So Dr. Kim is gonna talk to us a lot today about vibrant about them as a company, about how we can use them to help diagnose neural inflammation, root causes of inflammation and how this is all connected to mental health.

So welcome to the summit, Dr. Bruno, thank you for coming. – Thank you so much for having me. I'm excited to be here. – Ditto. Ditto. Let's jump right in.

I just kind of lay us the land, we're gonna connect all this to for people to lab testing, to what to look for, to really get to the root causes and But let's start with, who is vibrant, who are you? How is vibrant?

Really serving the community of people with mental health. Can you kind of just give us the lay of the land a little bit? – Sure. Absolutes, yeah. So um I am a functional medicine provider. I've been in practice for like 15 years.

I've been working for vibrant for her at least two years now, but have used them in my practice for a really long time. Um so vibrant is um a it's a lab company but it's really a technology company because they use the state of the art technology so that we can get really accurate results and that as a provider, as you know, Diane is.

Dr. Diane is really important for us to have this accuracy and reproducibility and reliable testing. In addition to that because they have such a unique technology, they can offer very comprehensive tests and a wide variety of tests.

So where before you maybe have to go to one place for mycotoxins and one place for tick borne and one place for looking at your neurological inflammation.

What Neuroinflammation Is and Why It Matters

Now we can do all all of that from one company and it's exciting you get this really great lab report and be able to say, okay, we've got these microbes and we have this toxicity and we have this inflammation and this auto immunity all in one really nice bundle to be able to give those root causes to the patient without having to kind of piecemeal it together.

– Yeah, thank you. That's so helpful. And one of the things I actually just want to say before we get into the meat of this is that I I think what you guys have done so well over there, like one of many things is really giving the lay of the land as far as from a user experience.

Like when I go over the task from vibrant with my clients, the way it's formatted to explain and be understood and not be confusing for clients is just you guys have put so much thought into how it's actually delivered and really taking some of the pressure off as a clinician to like hand this test and a client be like, this is so crazy. I don't understand any of it. – Exactly what does this mean? Because we're looking we're looking at really complex markers and really and it's nice because they always have a summary page, they always have some really great, you know, lab comments of what does that mean?

What does it related to? So you can help too pull it together. – Exactly, exactly. So less than go into neuro inflammation unless we have a couple of talks on this. But I want to just orient because some people might not have heard those talks. What exactly is neuro inflammation?

And how does somebody become neuro inflamed? Would it tell us about that process? – Right. Right. So, you know, neuro inflammation is very much like it sounds right, It's an inflammatory process that's happening in the neurological system. So how that might present to a patient.

Um They maybe are thinking that they have brain fog, right? They have cognitive decline or they are just having trouble finding the right words. Or they got really bad headaches. Um All of those things are all of those symptoms could be because of this inflammatory process or sick.

Well a that is happening in the brain now, that's one thing to name it, neuro inflammation, but why is it there? Right inflammation? Is there for a lot of different reasons. Initially the body sends out this inflammatory cascade as a protective mechanism to the body. It says, oh no, there's an alert, let's try and fix it, just like if you would sprain your ankle, your foot gets your ankle gets inflamed, but it's a repair mechanism.

But what happens is if that trigger goes on and on and on without being resolved or out without being identified, then we cause chronic damage or chronic inflammation.

And so really the what we're looking for is that root cause. It's like, yes, we can look at some of our auto antibodies to determine, Yes, it's an inflammatory cascade versus maybe an autoimmune cascade or maybe something being driven by blood sugar or whatnot. But then what do we do with that information?

We figure out why was that inflammatory cascade kind of kicked off in the first place? And so then we want to look for microbes or toxins or other types of triggers that could be really flooding in to that neurological system.

– Yeah, thank you for that because I think it's a really unfortunate thing that so many people stop at the auto antibodies, you know, it's like we get the, you know, autoimmune diagnosis. We have some auto antibodies and it's like, okay, great. So whether we're gonna do pregnant is um something like that, like, you know, something that is not going to really solve the core fundamental reason. So, yeah, so now, what?

So from a testing perspective, so we have, you know, two different ways.

Testing for Root Causes and Autoantibodies

We look at what you've said, we have auto antibodies that are showing this underlying inflammatory situation and you know, just to remind everybody, like we've talked in other in other lectures about how inflammation and neuro inflammation, how we can get into the brain, how we can actually disrupt the brain structures, how it can change our neurotransmitters. So all these links that we keep covering as far as the links to neuro to mental health disorders.

So, from the standpoint of these roots, right? So talking about these roots, and we're talking about, say in this example, these autoantibodies autoimmune condition and saying that there's even a further root cause than that that's driving an autoimmune condition, that could be in this example part of the neuro inflammatory picture.

Give us a sense from like what you guys do, like what test people should be asking their clinician about if they're laypeople or if their clinicians listening, what they should be considering both, you know, from both aspects, I think, from the auto immune aspects, because those are good markers to track progress.

But then of course, also the root cause, can you give us the lay of the land of like what people should be thinking about from a testing perspective. – Absolutely, absolutely. So, you know, one of the big things that's going to be microbes because and that's obviously one of the big focuses of the summit is to be looking for those microbes. So is it a tick borne microbes or some other type of opportunistic infection? Is it a mycotoxin?

Are those um part of that underlying cause. So making sure that we have really good testing and comprehensive testing to make sure that you know we don't just look for one borrelia species right? We look for all 17 of them because if we miss one, if one is negative, it doesn't mean that the other ones are going to be negative.

Uh so we're gonna be looking collectively at all of those um lime like the lime spire kits are also the co infections and other types of opportunistic infections, mycotoxins but then we also have this whole realm of just toxins in general.

Unfortunately we all live in a toxic soup, right? We live on planet Earth, we can't leave planet Earth anytime soon. So we do have to learn to figure out like how full is our bucket.

Some people have, you know the ability to you know genetically have really big buckets and they don't overfill as much, but some people have smaller buckets or because of genetically they get overloaded very quickly. So understanding what is in our environment and testing for it, not just saying oh I don't spray roundup at my house, so I must not have any glyph to say around me well you may live within a mile of a golf course or you know there might be a farm down the street or same with plastics and whatnot.

So we really need to get a baseline of what is your total body burden from all of these aspects and then be able to make that determination of, you know, could those be those triggers and then monitoring along the way because yeah, you have the auto antibodies. Now we know what the body burden is.

And then collectively we can work through treatment plans and get multiple data poi to be able to say, oh, you know what we cleared and we dealt with this tick borne infection and look, it helped to clear this neurological inflammation, auto, you know, auto antibody to be able to improve. And that's how we track.

We don't just track and say, you know, do you think that you have less brain fog? Like yes, that's important. But we also want to be able to look and say that process is no longer happening in the body. – Yeah.

There's one study that I've seen that shows that auto antibodies actually show up seven years prior to having symptoms. And so, you know, I haven't seen a study that's like shown the reverse is true, but presumably it could be right that we lose that just like we have autoantibodies before we have symptoms because it takes a while, we might, you know, lower our symptoms before our antibodies are totally gone.

You know, presumably so it's just good to be checking both things. We want the labs to look good, we want the symptoms to look good. So, and we talked a lot about on this summit already.

We've talked a lot about leaky brain about this body burden picture getting into the brain. So can you talk a little bit about from the antibodies perspective then testing we can do that. Testing people should be looking out for to make sure their auto antibodies are normal and there, you know, back to their baseline, like what can people do for that?

– Right. It's far So our test is called the neural Zuma plus and we've got 47 in different auto antibodies, anything that comes from the neuro inflammation to the and the brain auto immunity. We're also going to be looking at markers of DeMillo nation and blood brain barrier disruption, that's actually a really big key, especially if you're talking about, you know, this gut brain connection because if you have a leaky gut, you have a leaky brain, there's this really fascinating research and I know you know, you read it about like within 30 seconds of a of a blow to the head.

The intestinal permeability of the intestinal gut lining is open and permeable. So it's like it works both ways and we need to know that because if the brain is leaky, if we know the gut is leaky and then we do the auto antibodies, we know the brain is leaky. Well now all of a sudden the central nervous system is no longer sitting at this like seat of privilege behind this barrier and the immune system can see it and that's a problem because the immune system doesn't normally see it.

So it can then be heightened to say oh what's that? And then of course we get the big sick koala after that. So knowing you know if you know you have leaky gut or you know you have got issues being able to test to see what are your auto antibodies for the blood brain barrier to be able to make those connections is important. And it's not just saying okay oh look you have them. Some of those markers have very specific what we call molecular mimicry where it's this the you know the antibody gets confused or the and then we can look and say oh you know what that

gets cross reactive with gluten per se or this one is cross reactive with aqua importance. And so gives us as providers much more targeted treatment action items to be able to help to seal the barrier while we're sealing the gut and be able to put that brain kind of back in protection behind the barrier so knowing that gives us just the more power to be able to get a better treatment plan.

And then on the flip side once we know that and let's say we know the brain is the barrier is open and then we also see oh my gosh we have these levels of sake Batra in the you know that we're looking for and we know that that can become neuro invasive or H.

PFAS Exposure and Total Body Burden

H. B. Six or whatnot. Then we have action items that we can take their so collectively just pulls the whole picture together for the patient. – I like the word you use their action items.

Like I think that's what's so great about testing is like it's very it's very clear action items right? It takes to get out of it so. – I'm really not looking to say like this is is oh you have this marker gloom and doom or this, it's diagnostic of this, you know, cognitive issue or this cognitive disease. Um how I like to tell my patients is like you're on a train, you are on the neuro inflammation train and this test is gonna tell me how you got on the train and what direction you're headed and the disease is at the end of the track. So you're not there yet but that's where we're going and maybe seven years before we get there, like you mentioned before before you get those symptoms but what our goal is through those action items.

If I know how you got on the train, I can correct course and put you in a different direction to be able to prevent you from getting to wherever that endpoint is and that's the point right? Like get to it before it gets to you so.

– Well and I think that's the other great thing about doing the, you know, the auto antibodies in addition to the root cause is one of the things I've seen, Like I have a patient that I'm going to change a couple of details to just make sure she's super protected. But she has one auto immune marker that this particular marker when we first, it's supposed to be less than one and she has it at 170.

And we first started working together and now and it's like we keep seeing it and we've been working together for about a year and a half and we keep seeing it creep down.

So we know we're on the right track, you know? And I think that's a cool thing about using some of these markers that are saying not diagnostic for the roots, but they are diagnostic for telling us like, oh what we're doing, as far as fixing the root is actually working. Look at the change, keep going, those kind of things. Right, what else do you feel like people from a symptom perspective, like from a total body burden, what symptoms should they be looking out for to say like, oh my gosh, my body burden. My cup is overflowing.

I'm definitely like, I'm toxic. I gotta look out for this. I gotta do testing what symptoms are people typically. – The crazy thing is it's like, it's in all the systems, right?

And depending on the person, these toxins find different homes, if you would say like, right. So sometimes some common places where these symptoms will tend to um, find a home is going to be like in the reproductive system.

So probably you have a lot of endocrine problems. It's probably in the liver. People who maybe eat really well and don't drink alcohol and they end up with like fatty liver do disease.

We talked about a lot of the issues with the brain. There also could be issues in the cardiovascular system, right, irregular heartbeats or arrhythmias, increased blood pressure.

Um, so really across the board, you're going to see a lot of symptoms, but patients do tend to see them in multiple systems. So it may not be that they just have irregular heartbeat.

They may have irregular heartbeat as well as eczema as well as brain fog and fit. And they're just kind of like, I feel

really crummy, right? I don't feel like myself anymore. I just I can't make it through the day.

I just have all of these symptoms really all over the place. Um, those are the patients that tend to have a big burden and it doesn't mean that it's always a plastic burden are always a P. F a burden or always a micro toxin burden.

It could be a combination of all of this, but we need to test to look because those are the people who tend of the burden. I think also people who have multi who are just they say I'm very sensitive, right? I can't walk into a perfume counter at Macy's.

I can't you know, be around at my kids school because of the cleaning supplies. I can't you know, they are just very very sensitive. That's a pretty good indication that your bucket is full because if anything outside of your normal realm can trigger you off, then that means that we need to look to try and lower that burden. – Yeah. Yeah that's really helpful.

It's I think that perfume example in particular like the straw that broke the camel's back. You know, your your cup is already full. So now a little bit is gonna just send you into symptoms. So yeah, I love that for people as a, you know, likely diagnostic like you gotta look down this track.

You said something that I want to go into further the P. F. A. The forever chemical. I want to make sure we spend some time with this because this is one, you know, it's like B. P. A. Is get a lot of press life states, get a lot of press. But there hasn't been a lot of press around this one. So let's talk about this chemical. – Right.

So P. F. A. S. Which is um it stands for either per or poly floral alkaline substances. So these are just really long chains of these carbon and fluoride bonds which are very very strong And what that does when, when a strong, when there's something with a strong bond then it doesn't break apart or dissipate in the environment or within our bodies, which is why it's called a forever chemical. Um So of course everyone's like already their ears are perking up there. Like that sounds really bad.

Well the problem is that they're also used throughout multiple industries, kind of everywhere. So anything that's stain resistant, anything that is nonstick, Um anything that has water repellent, so that tends to be a lot of the products, right?

Um the other thing is like any types of adhesive, you put like a band aid on um or any type of food packaging. So what did a lot of people start doing in 2020?

Getting a lot of take out food, all of that is coded in this kind of nonstick chemicals. And then if you put hot food in there, there's more likely to have transfer. There's two things that really are actually three things. But as far as food goes to things that will really help to increase the transfer one is heat and the second one is fat.

So if you all of a sudden take a food that has high fat, which a lot of take out food does, that's hot and you put it into this surface, you're going to get that to come into your food, you're going to bring it into your body.

Um And then because it has such a strong bond, it really bio accumulates in our systems and then has that same toxic kind of body burden Overload that we talked about with other types of chemicals that endocrine disrupting the brain issues.

It really can affect multi systems within your, within your body now, dr diane And you and I are both in Colorado. And so one thing that I always that I was shocked about was the firefighting foam that they use for all of the wildfires here is packed full of fas and there was a recent study out that 100% of our drinking water here in Colorado has PFS in it. It's shocking.

Um I do think it's gonna start to get a lot more press. Um there was several studies or studies and articles just recently in um you know, like the Denver Post, talking about that point of the drinking water, or even like the Washington post and the new york times are starting to pick up on this.

Like maybe these things aren't such a great product to be just put out there, especially since we don't know how far it's gonna break down. So understanding what your body burden is up until recently, we haven't been able to test for them. Um testing for PFS was really exclusively for people in industries like firefighters.

Um and it wasn't widely, it wasn't accepted or, or just available to the masses, but now we have the ability to test for it so that we can see what your body burden is. And you can, you know, then you can start to mitigate maybe you change your cooking, you know, cooking um pants or you stop using microwave popcorn bags or you stop getting as much take out or you know, you filter your water more, there's lots of things that we can do, but you got to know what your baseline is and then be able to track it from there.

Tick-Borne Testing and SIBO Connections

– Yeah, knowing baseline and being able to make sure that treatment progresses working I think is so easy. Good care. That's really goes a long way. Um One simple question that I think people might have is just when it comes and you're talking about nonstick cookware, Have you seen that the PFS are even in like the green pan?

So like the teflon free pants, do those actually have PFS in them? – So it depends on the pan. So just teflon free means that they could still put a lot of other stuff in there. Um But if you're using like a cast iron skillet or the ceramic coded uh cast iron skillets, those ones won't have the P.

F. A. S in there, but it is a question to ask, or when you go and ask those companies because sometimes they can be a little bit sneaky, right? They'll say, oh it's teflon free and we're like great, no teflon, but they're like, oh but we put this other P.

F. A. In there. So they did it all years ago with BP A. Right? This is B. P. A. Free. But it was like had BPO in it and that's not gonna be better. It actually might be worse.

– Yeah, that's exactly right. That's and I actually even learned that with some of even like the aluminum free deodorant that you know, you get and it's like looking at there's other things like B.

H. T. And like that's a really bad chemical and often times it's not aluminum, you have this other thing so. – Right. But they do those like they put the catchphrases, like the things that people are looking for Teflon free, aluminum free this free. And so it's like, you do have to do a little bit of re research to really figure out like, okay, what are the pans that I can use?

What are, what is the clothing I can use? And sometimes there may not be a good alternative, right? Like there's not a good alternative microwave popcorn bag. Like you just need to air pop or stove top, pop your popcorn. So, um, you know, there might be those choices in there too that you gotta make.

And then symptom wise, like from a, from a P. F. A standpoint, have you seen that there's any specific symptoms that go with say an elevation of this chemical in the body or is it much more like general total body burden, like the symptoms you've already described? – Yeah they're very similar to total body burden.

However there is some research that shows that high amounts of PFS that are inhaled will cause a lot of like asthma type symptoms. So maybe more breathing or gas exchange problems. Um They tend to see that more when people are in a situation like instead of their getting their exposure maybe from the groundwater but they're getting their exposure because they just put in new carpet that has stain resistant, you know, products all over it or chemicals all over it.

So you usually will either get it from ingesting or inhaling derma. You know dermatological um is possible as far as transmission but less likely. Um But anytime you have that chance that it's something that you could be inhaling you could also really be looking at some respiratory type issues.

– And I would think then potentially, you know, in mental health world like any time we're getting shortness of breath obviously that can be related to anxiety and that sort of thing.

So I would think there'd be potential, you know, overlap in that realm as well. – Yeah. Oh absolutely. Absolutely. Yeah. Yeah they do say for the nervous system they do have some risks with like um um A.

D. H. D. Hyperactivity also just kind of memory impairment is part is a big piece of that as well. Um And depression and changes in neurotransmitters and that's gonna definitely go into the mental health realm of where what might bring somebody in initially but collectively they might be seeing it in other symptoms too.

– Yeah and typically I think with most of the stuff like we know it's not one symptom it's a lot of simple right? So and then tying this back to the microbes picture. So from a micro perspective before we go into more details on testing and things people can you know can look out for I want to go a little bit deeper with that before we do that. Is there anything beyond neuro inflammation to tie microbes to mental health from your perspective?

Mechanisticly that you'd like to share? – No I think we really have covered it all as far as its you know connection to inflammation, connection to neurotransmitters connection to the auto immunity. Those are going to be, what I would look at is your kind of main mechanisms of how that might be driving the overall picture. – Perfect. Perfect. And so then let's talk about I want to talk about your guys tick borne tests and a little more detail.

I know you mentioned you know 17 species of borrelia and and that's really important because as we know like the conventional test typically only test for one so likely you're gonna miss them? Right?

And so huge huge huge benefit of like doing that thorough a test. What else from a thorough test perspective are you you guys offering that people should be aware of? – Right.

So we are offering the most comprehensive test on the market at the least amount of price at the least amount of dollars out of the patient pocket. Which is really important because if somebody is going to be entering into you know treating line it's a long road and we don't want to front load and spend all the money on the lab testing at beginning. So that right there is important we can do that because of that technology that I talked about at the beginning with this microchip.

And so we're going to be looking at all those different borrelia species, north American borrelia species, your European species Asian species to be able to really collectively look because people are traveling all over the world and we have international trade and travel. So we definitely want to make sure that we're addressing for all of that.

Um And then our co infections, we're gonna be looking for multiple species of each co infection. So we look for multiple you know species of Babesia or Bartonella or anna plasma so that we can make sure again to be very very comprehensive in what we're looking for.

Additionally we're gonna be doing a direct test and an indirect test. So we do the pcr test which is your direct test looking for the actual microbes.

But we also do this serology test looking for the I. G. S. And the I. G. M. And that's important because depending on the stage that the patient is in they may not be able we they may not have a detected PcR but they have positive serology or vice versa depending on really what the immune system is doing and how you know how long ago they were exposed and what's happening. So I think it's important to be able to offer the number of speech But also the different types of testing.

So we just have less patients falling through the cracks right? Because there's so often and you here and I hear it it's like people by the time they get to us they're like I've been looking for an answer for 10 years right?

I've been suffering for this long and I've been to lots of providers and it's like if you don't you don't know what you don't know and if you don't test the right things you might miss it.

And let's not have those patients fall through the cracks anymore. Let's make sure that we can get them that comprehensive testing so in all aspects so that they can get the answers that they need. – Yeah I really want to

emphasize that because there's a study out there and I want everybody to hear this that the first line of testing for these chronic things especially when it comes to like Lyme Disease and Barelli which is so related to mental health issues. The first line of testing conventionally is called the Eliza. And there's one study that shows that it has a 66% chance of a false negative. Right?

So it's like my [inaudible] – You know like what? Yeah I fell off my I knew it was bad but when I found that study I definitely had to keep my my butt in my chair I was just like shocked you know that it was really that severe of a poor task.

So I really want everybody to really hear this because I think it's it's so common. I think we probably both here this right that people come in and but I already had testing for Lyme disease. Right. Right. So if you've had that for yeah do not rule that out. That's very very important.

And the other thing I wanted to make sure that we touch on because there is a link from small intestinal bacterial overgrowth to actually creating blood brain barrier disease where we get the toxins moving from those overgrowth into the actually basically because of that blood brain barrier disease we can have a mold toxins or lyme toxins, other toxins PFS whatever. But because we have small bacteria, small intestinal bacterial overgrowth, those toxins move from the you know the body into the brain more easily. So so looking for some of these peripheral things are also really important. So can you talk a little bit about what you guys do over there to help with SIBO. – Yeah so we're going to be offering something that's called I. B. S. Sure where we're looking for um that type of those types of antibodies in the blood to be able to identify that connection that is going to be happening. So it's not necessarily direct breath test where we're looking for the bacteria but we're looking for let's say the um the aftermath right what's going on in the blood and then that connection to the brain.

So it's very helpful again identifying a baseline.

Foundational Gut Testing and Wrap-Up

Being able to treat to monitor to be able to look at the connections that the gut is making to the brain without you know doing the exact same without doing the breath test. But being able to do a real simple blood test and being able to look at how the immune system is responding well.

– And the other thing I've seen with that test that I think is so helpful is the ability of it to like make sure somebody's done with their SIBO treatment.

Because if they have the antibodies that your guys are looking for those those markers that you're looking for with the I. B. S. Shore and SIBO is gone but they still have those positive antibodies. The likelihood is that is going to come back.

So it helps to prevent recurrence. Right? So that's one of my favorite things about that. – Oh yeah and if that process is still there they still may be getting the brain symptoms, the systemic symptoms, even if they don't necessarily have like that, you know, typical Sebo symptom Atala ji of that, like belly blow and that type of symptom Atala ji, they still could have those aftermaths and those still need to be that immune system.

This regulation still needs to be dealt with. Um one we don't want to come back in to, we just want to make sure that we have treated completely that patient.

Yeah. – Yeah. I hope that's another, I keep emphasizing these points that I really hope people are hearing from you, like treat it completely because I think people get so close sometimes too, You know, being good and then they give up at that last 10% and that last 10% is sometimes like when we feel the best in our whole lives, but it's also when we like tie up things in a nice little bow, so we hopefully don't like get back into recurrence, – Right, right. Which is so important because that is extremely frustrating for the patient and the provider when they're like, I was so good and one stressful event in my life threw me backwards and it's because they were in that 10% right.

They were vulnerable that things hadn't been, you know, tied up to be completely done before. And so then they

did end up back back where they were. So yeah, we got to make sure we follow it through the end and check all the boxes. – Yes, Yes, absolutely. But I want to make sure that we've covered everything from a testing perspective and thinking about the overarching mental health picture and microbes and toxins. And are there any other tests that you think that hey, people with mental health or people with large chronic disease pictures should make sure they have on their radar is important to do that we haven't talked about.

– Yeah. You know, I think foundational tests with anything that could be causing that inflammation, you, you know, meant looking at a stool test, looking at the gut function, looking at food sensitivities really at that peptide level can be really helpful.

So those are maybe some more foundational tests that we want to make sure those are there. Because also if, you know, we can remove the foods and heal the gut and there's also a microbe on board, as far as a tick, you're gonna respond better to treatment of the tick borne if you have a better foundation to work from.

So just collectively looking at kind of all the boxes within functional medicine, starting in the gut, anything that's driving inflammation I think are important.

And then you can start to based on the symptoms, you know, the provider and the patient can start to say, okay, these, these ones make sense after we have those really good foundational tests taken care of and like we said at the beginning that you know that's a great thing about vibrant is you can do all of that all in one place so that you really can get that consistency and you can get the the comprehensive testing that you need. – Yeah and thank you for that.

It's you you mentioned a thread that I'm like trying to weave through the summit because I think it's a really important point which is we get I see people get so excited about oh it's the micro that's causing the thing or it's the toxin that's causing the thing and that's awesome. We gotta find those things but you know I keep saying over and over and I really keep emphasizing this because of what's important.

Like it completely agree what you said, it's we also have to think about those other foundational components. We can get so excited about the microbe.

Like yes tests for it, yes test for the toxins do all that but don't get so excited about that stuff that you forget about these other foundational things that can really be huge pictures of the puzzle. – So many of these is you have to also ask I mean if we're going backwards there, we talked about finding the root cause but it's like why were you susceptible to that root? Cause you were susceptible because your terrain was not optimal. So it's like you know it's like auto antibody to the microbe or toxin all the way back to the terrain because then we can start to collectively look at you know drawing the lines of how the patient ended up where they were.

– Yes. Yes exactly. Me too. Me too. Well I want to talk about giveaways that we're doing and other ways to reach you before we go there. Is there anything else that you can think of that we did not cover today? That feels important to say. – No I think we covered it all. We were really efficient today.

– We did we did great. We did great. So tell us about the test offer. Do you want me to talk about it? – Well I'll let you I'll let you talk about the offer.

I know you have a great online platform to be able to offer these tests um um to patients. So I'll let you mention what is in your online store for that. – Yeah. So one of the things we're doing for everybody you guys is we are offering a summit promo of test plus a console with myself.

And so basically in that test plus console you will get you can go on, you'll get a link. The link is in Dr. Bruno speaker bio and basically what we're doing with this is when you get that task you will get a link to book some time with me. I'm doing small group, consults groups are really great for interpreting tests because most of you guys are gonna be ordering the same test and you know what's going to happen, somebody else on the call. And the small group is gonna have that question and you're like, I did not even think to ask that and this was my moment.

So it works super, super well for these types of situations. So giving you agree Great discount at the summit for that. And then for the first people that sign up, we're giving you a free copy of my book that is being released this week of the summit. And so the first people that sign up, you get the 1st 50 that sign up, you get an electronic copy of my book for free.

– That is awesome. I'm so excited to read your book, I am so excited to send you a copy. Very good, very good. And then anything else to wrap up you guys just so you know, I want to make sure that you guys know that you can get a hold of any clinicians out there. How do they get a hold of things?

Is to set up accounts with you? – Okay, so probably the best thing to do would be go to vibrant-America. com. Um and go into that just the main website, there's gonna be a section where you can say you're a new provider, you can set up an account um testing is through providers only.

So patients out there who want testing, you need to go through dr Mueller's site to be able to get the testing because we want to make sure that you get that interpretation and that consult with it. Um and so yeah but if you're a new provider you can go over to the vibrant website and there and then we can also you can always always find me on the clinical page. I do consults as well for providers and interpretation and we have a really great clinical team that is there to help our providers. – Awesome. Perfect. Well thank you so much for overlaying the over viewing. I should say the lay of the land with the test and I think this has been super helpful for people to understand what to test and why and where to go and solve all these problems. So thank you so much for being here with us today. – Absolutely. Thank you so much for having me.