Introduction and Background

Hi everyone. I'm Doctor Sanjeev Gupta and you're listening to the advanced Anti-Aging and Technology Summit. And today I have Doctor Justin Strand with me.

How are you, Justin? I'm good. How are you? Thanks. Thanks for having me. No problem. I understand you're in lovely Minnesota. Northern Minnesota. It's a state like that. Minnesota.

And most important. Okay. So, yeah, I'd love to, maybe just take us a little bit through your background, how you got involved and and the microbiome and the immune system.

How does that become of yours? Okay. Well, I'm a natural traffic doctor. And way back when I first got interested in this, maybe over 20 years ago now, I, my dad actually got, had a heart attack out of nowhere.

And so I thought when I was watching all of the interventions and everything that went on for him, I thought, I wonder if there's a way to work with this before it gets this bad.

And I think because of how I was raised, I didn't really think there was, but I thought, well, just check it out in case. And I, I looked online at the time, there was Google didn't even exist yet, you know, but I was doing a search engine, I think Yahoo and I put in natural medicine and up came I at that point I was a biology major already in undergrad, and environmental studies, and I up came natural path medicine.

And in my head I thought, that sounds kind of hokey. And I looked at the curriculum, you know, and it's like, truly medical school. And so then I the rest is kind of history.

I thought it was really fascinating. And my, my principles really is a natural path are to find and treat the cause of illness, treat the whole person, that the body can heal itself if we give it what it needs and get out of the way, right, so that it can do its work.

And doing first, you know, harm for us is lowest intervention therapy, effective therapeutics. So we try to find a way to work with the body and support the body so that it can, it can heal on of its own accord.

So that's kind of a snapshot of of what, my, my, medical training, and then working in my own practice, when I was introduced to working with the microbiome, it was such a turning point for me in my clinical practice, watching people's health change, especially pediatric patients, is where I started using this product line.

Bio botanical research is product line because, it's a it's such an easy it's a liquid, you know, so it's easy to, access for, for pediatric and sensitive patients.

And I just I watched this little girl. It was so, you know, as a clinician, we have those those light bulbs where you have such an experience is so dramatic, watching a patient's health shift that you never forget those moments.

Right. And so that happened for me using this product line. And over time I started to understand the mechanism. Why why is she, had the experience that she did, with healing and, and really the importance of working with the, with the microbiome in order to achieve that, that level of healing.

And so I, I met Doctor Fresco and it was like meeting a rock star for me because I had seen such amazing things in my practice. And I was like, oh, Doctor Fresco, if you ever need anybody to talk about your product line, let me know, you know.

And so this is eight years ago, right?

What the Microbiome Is

And she, she had me work some conferences and, eventually and, I took the I closed my practice to become the director of clinical education for this company.

And, really, it's become such a strong passion for me to get this product line in the hands of other practitioners so that they can have the same experience that I did clinically.

And it's we're all looking for those tools, right? As clinicians, as consumers, we all want to find tools that work that are effective, that are gentle, that are helpful.

And that's what this product line is for me, or was for me in my clinical practice and continues to be for me, you know, in my family and, so that's that's how I landed here.

Okay. Awesome. And maybe for the viewers, you want to give a little bit of, 30,000ft view of the importance, the microbiome. That would be helpful. And then, sure, sure. That okay, so the microbiome, you've probably already talked about what it is.

Right? But it's a collection of the microorganisms and their DNA. Right, that live in, in any location on the body. Right. So the microbiome, we have a microbiome in the gut, the mouth, the skin, the ears, the your genital urinary tract.

So the vaginal microflora or microbiome is a little bit different from the gut which is different from the skin. So they're all a little bit different.

But it's it's a good we all have that microbiome. And what we need in that microbiome to stay healthy is balance. So we need this balance between gram negative gram positive bacteria, fungal elements, virus, mold, all of those things, typically parasites.

They all we can live with a lot of those different things on us and still feel good. And so making sure that we tip the balance in terms of having the beneficial microorganisms in the body.

And do you want me to talk a little bit about immune system specifically? I know that's kind of the topic, but do you want me to talk about the interaction there as well?

I think that's yeah, that's cool down the road for sure. Okay. Okay. So, this is so fascinating to me, right? That, I mean, we all when I was in school, my teacher, one of my gastro teachers, said gastro intestinal, or gastro gastroenterology class.

The teacher said it's all in the gut. It's all in the gut. And for me, I was I was like, why? We have a brain and we have lungs and we have a heart. Why is it all in the gut?

No, I didn't quite, you know, I still didn't get it until I got out and got into practice. But just to sort of set the stage for people listening is that we have up to 85% of our immune system that resides in the gut, and the immune system is responsible for keeping us healthy.

I think that's everybody's kind of aware. We need a good immune system to stay healthy right from, infection and, and, but the reality is that our immune system also keeps our helps us with tissue repair.

Right. So if we're looking at aging in terms of, collagen in the skin, it's our immune system, Matt, as well. It's also important for, the immune system for governing inflammation in the body.

So if we if our immune system gets this sort of low level chronic poking by something, right, that's irritating and prickling it, then we can end up with low levels of inflammation that then will advance our the aging of our tissue over time.

And so our immune system is responsible for so much in the body. And our microbiome interacts directly with the immune system in a number of different ways.

So we have the, the microbiome priming the immune system in the, in right directly in the gut. So, I like to think about it in this way. So if we get a virus in our sinuses and we swallow, at least we, get post nasal drip and we swallow some of that.

That's by design, right? I know we're supposed to blow our nose, but you can make a case right for that. Some of that needs to go down into the gut because as it travels through your gut, it interacts with the bacteria there, and the bacteria will partially send off an alarm.

And also our cells called dendritic cells, which are part of our immune system. We'll sample that as it goes through it, sampling those little bits of viral DNA or material.

And it takes it inside the body to our lymph nodes, which are part of our immune system, where we sort of prepare for battle. And so our body will pull that in to the mesenteric lymph nodes in our in our immune system, T-cell regulation, all of these deep, you know, this deep immunology piece of it, they all start to prep for a potential battle, but they don't do anything.

They don't deploy unless we are immune system succumbs or we we start to actually get sick from that virus. So say we inhaled some of that virus and we get it in our lungs or our knees, you know, up in our, in our sinuses, and we start to get an infection.

Then we actually have signaling molecules that will say to those lymph nodes in the gut, which is so fascinating. Amazing, right. This beautiful design, we need those we need to deploy the artillery.

And then our body, our mesenteric lymph nodes will release all of those immune mediators that were that were produced as a response to what came through our gastrointestinal tract.

Immune System, Inflammation, and Aging

And then when you get on top of, you know, it's like this, right? We take care of it. Ideally, we don't even have much in the way of symptoms. Our body just gets on top of the microorganism that's creating the infectious problem.

And so that's that's more likely to happen if you have a healthy microbiome and a healthy gut lining. If you get dysbiosis in the gastrointestinal tract, the microorganisms don't communicate as well with our immune system.

The beneficial the, damage, there's damage to the lining of the gastrointestinal tract. Those dendritic cells can't read what's going on in the gut. We get inflamed.

We'll get overproduction of, mediators that are very inflammatory. And the problem with chronic inflammation and the immune system is that if you have chronic inflammation and, bacteria that produce metabolites in the gut that produce.

Source of toxicity of well, toxicity and low grade inflammation in the body, which I this is definitely it was for me when I was in medical practice was that a light bulb went off like, oh, it's not just heavy metals in the soil or petrochemicals that we breathe in from exhaust.

It's also what are we producing inside our body. Right. And so that toxic load we it's called endogenous right. Internally produced toxic load. That's something that we can easily address when we balance the microbiome.

So all of this immune the immune system so intimately linked there and it can't really do its work. Well if we're inflamed because it's it's trying to read too many different signals at once.

So if we're inflamed, the immune system responding here and there, and I would think about it like typically we

would expect the microbiome to send up signaling like a flare.

We have an issue over here when we get exposure to a pathogen. But if you have flares going up all over the body, then the immune system can't read and respond to that flare.

So if we can keep inflammation down, then that flare can be responded to immediately. If you have elevated inflammation, by the time that flare gets bigger and bigger and bigger, it's basically like a house on fire instead.

Right? And so then when the immune system comes in, you have this significantly larger and more dramatic inflammatory response in order to get on top of that, of that harmful microorganism or what the infection.

Right. So it's really interesting. All of it. I know I went on, I waxed, forgot it in there. I think that our viewers may have. So how does one know that one has inflammation?

Like what would be the, like, are we all having inflammation? Like, it's just like, have a great question. Right. So we all have some level of inflammation all the time and we need it.

Right. We need some inflammation again for tissue repair. And for I mean for responding to pathogens or to illnesses, all of that. But if you have chronically elevated inflammation, then I the way that I think about it, I think for shows up as fatigue, insomnia, mood swings, headaches, joint pain, fibromyalgia, you know, all a sort of it a lot of the things that we've sort of gotten used to culturally, I think, as, oh, we're just aging or I should expect to feel this way as I get older and there's really no evidence, you know, for long term or long ago, that we had the same sort of condition going on where most of us would be feeling a little, tired or I'm under the weather, you know, I'm not sleeping.

Well, these are all or. That you could have chronic inflammation going on. So, so you're saying that in the past, this and this wasn't necessarily part of aging, right?

But archeological evidence is that there was no joint tissue degeneration for for aged people. You know, that that's really more a response to a chronic inflammatory response through a lifetime, right?

That the, like me, cartilage degeneration or joint degeneration in the joint, you know, there, is more response to our lifestyle and modern way of living than that, archeological time show those joint joints totally intact, which is really fascinating to me.

It doesn't have to be that way. Right? The, the the, I mean, before we get into the bio botanical products, which I want to talk about. So anyway, generally people have thought about, dealing with the microbiome by taking, you know, probiotics, perhaps, you know, adding antibiotics.

But I think bio botanicals takes a different approach from my own. Yes. To the different way of looking at how to, deal with the microbiome and make it more healthier.

But, is it really is it an issue of the type of bacteria and diversity, or is it, you know, the leaky barrier or this, you know, what is really the problem?

What will really what is the inflamed microbiome look like? So, low diversity is one of the problem. That can be a problem. Right. So that means not having a lot of different microorganisms.

There to exist. So it's called metagenomic richness. It's basically the, the the robustness is the word that's used for sheer different species and of microorganisms in the gut.

And what the research has shown is that the more robust our microbiome is, the healthier people are overall. So that's one thing. The second thing is that in the advent of elevated carbohydrates, high stress and, antibiotic use, that we've had overgrowth of some of the more pathogenic microorganisms or organisms that we coexist with typically will overgrow to the point where they're creating a problem.

So the two I think, that are most well known are gram negative bacteria, and then fungal like Candida. So yeast, organisms as well, both of them generate chronic inflammation that then damages the gut and causes leaky gut.

So there are a number of different mechanisms. There's the LPs lipopolysaccharide is generated by gram negative bacteria that is inflammatory to the lining of the gut.

And then it will cross into the bloodstream. And LPs is so toxic that just injections of just nanograms of it will induce, septic shock symptoms in a person.

So it's it's very, very toxic. It has to be cleared by the liver. And it will circulate through the bloodstream. What doesn't get cleared by the liver or circulates through the bloodstream?

It will, cause damage to the blood brain barrier so it can cause that's where we can see that sort of, you know, mood swings or fatigue or brain fog that can come along with dysbiosis.

Right? And so if those gram negative bacteria start to overgrow, that can be a real problem. If, if the fungal elements like Candida or other fungal, or yeast species start to overgrow, that stimulate to sort of a different pathway of inflammation, there are multiple inflammatory pathways right in the body.

And so, it's, it's sort of a multiple, but it's, it's leaky gut. It's production of, pro-inflammatory mediators. It's, damage to the blood brain barrier.

It's all sorts. It becomes a cascade that becomes a feedforward cycle. So all of those things. Metagenome. And when you reestablish with beneficial microorganisms, then it reestablishes.

That balance helps to heal the lining of the gut, and then the gut is protected. Once it's if we have a healthy gut, we don't get the leakage of lipopolysaccharide across the gut lining.

We don't get the same level of inflammation systemically if, you know, in a number of different ways, if we have that healthy balance in the microbiome.

Okay. And, what type of testing, can, can, patients do to, to find out, health of their microbiome? Well, so stool testing is pretty popular and there are a number of different stool tests.

I, I'm not an expert. I found myself often using biocides as a diagnostic tool because it's so broad spectrum that I would do an intake with a patient run testing food sensitivities, maybe stool testing, other, you know, typically I run like inflammation markers and, some, maybe some cardiovascular health markers, some basic testing.

And then I would say, while we're waiting for all that to come back, I would treat the microbiome. And if they're feeling better, then I know that the microbiome is playing a role.

And if they if they don't respond to biocide and then to me it is, it's and that that's, infrequent. But, if they don't, it says to me this person's microbiome is in good shape and we're good to go.

Dysbiosis, Leaky Gut, and Testing

And so we would just move forward, then evaluate testing and develop a therapeutic plan based on, how the test results came back. So that's the first thing is that I used Biocide.

And in that way, in my practice, right now, I think the, the gold standard is coming, this full genome sequencing, a stool test where they look for all of the different microorganisms.

Every test has its limits, you know, the full micro, the the full genome sequencing isn't going to tell you, like the mechanical function of the gut. Do you have good hydrochloric acid, pancreatic enzymes.

Are you absorbing your fat? All of that stuff. But it it will detect anything that's in your stool so you don't miss. Like, if you do culture, you miss certain things.

You'll only miss the. Or you'll miss all of the anaerobes, because as soon as they hit the, the er the oxygen, they won't grow anymore. So you're missing a whole area.

If you do just culture. So there's, there are all these different reasons, but if you do there, there are ways to combine them or, you know, and they're clinically used to evaluate, you know.

Oh, sorry. I have to fix that okay okay. Yeah. No problem. Okay. Can tell me. So there there are ways to evaluate, mechanical functions clinically as well.

So that's that's what I found myself doing was more of like a clinical evaluation than, than actual testing a lot of the time. So maybe let's talk about, let's talk about the, bio sizing product and, but okay, rinse.

And if you could just kind of tell us a bit about it. Sure, sure. It and I also we can talk about the oral microbiome and that to dental side is one of the great okay okay.

That's great. So one one thing to think about, you know, in terms of the microbiome is that most microorganisms also produce biofilm, biofilm, it's called an extracellular matrix.

It's I think of it like an invisibility cloak. It's sort of their way of hiding from our immune system, hiding from antibiotics, hiding from antimicrobials.

And it allows them basically a shield that they can do all of their they can receive nutrients, food. But they can't they they cannot be touched. Right. And so, that happens.

I think the easiest to identify biofilm in our body is plaque on our teeth. So it's that fuzzy teeth feeling that's a biofilm. But that happens in 80% of chronic infectious illnesses.

Biofilms are playing a role. And the reason it's a problem is that if you don't address what's behind a biofilm, it can become a source of recurrent infection.

And this looks like people who will take an antibiotic use an antimicrobial, feel better, and then they come off of it and then they feel worse again after, you know, two weeks a month, two months.

They're they're getting a recurrence of their, of their illness. And that happens because the biofilms release or reseed the infectious area, and the mouse, just like you can get all these inflammatory metabolites produced in the gut, you can also have those produced in the mouth. Right.

And so that's, microbial shift disease is what it's called. And the blood circulation is so close to the periodontal pocket that it is a large concern for cardiovascular disease, Alzheimer's diseases, all of those if you have even if you have dental work, you get you'll get transient septicemia, right where you have this transient increase in the bacteria in the bloodstream.

Our immune system typically gets on top of it. But even people with, cardiovascular disease will see biofilms in the coronary arteries oftentimes, where they they have gotten they've holed up in the actual lining of the, of the artery wall, and they're creating an inflammatory response there.

And it contributes then to the closing or that, you know, that occlusion of the artery. So interesting. Right. So it is really important also to pay attention to what's in the mouth.

And we know so we this is gross and fascinating, right, is that we have around 700 different species of microorganisms that live in the mouth. The mean person, the average mean for a person is about 300, close to 396.

And we have ten to the eighth microorganisms in a milliliter of saliva. And we swallow a liter of saliva a day. So you think about the number of microorganisms that we're swallowing.

And and then the really clear connection to gut health, to lung health, to sinuses, all of that. So address it. One of the things I love about Biocide and is that it's a liquid.

You're you're working with the mouth as well and automatically there's no way around it. Right? So you're addressing balance in the microbiome as well.

Yeah. And of the mouth too. So what are the the products are not antibiotics per se, right. No. And they're not probiotics. What? Exact. Right. Right. Exactly.

I so biocide in is a tincture and it's a glycerin tincture, so it's sweet. I describe the flavor like sweet pizza. It's a combination of 17 herbs or botanicals and essential oils.

So there are four essential oils and then 13 herbal extracts. And it's a what? This is my favorite thing. Like, I'm so sort of reverent about what botanicals bring to the table because they have multiple activities.

So you might for example, milk thistle, which is pretty well known for supporting liver health. Right. So we think of that as a liver health or it's also antioxidant.

It's also immune supportive. It's also an antimicrobial. So what happens when you create a formula like biocide. And when you understand and know the botanicals is that you start to get these layered effects right.

So we have we have not only this ability to have antimicrobial activity, which it does biocide and has antimicrobial activity, but we also have this ability to break up biofilms.

And if you think about the efficacy when you then you break up that biofilm. Now you have access to all of those microorganisms. And of course the antimicrobial effect is going to be stronger.

So you see a synergy when you work when when you start to layer formulas like this. In addition to that, the biocide means immunomodulatory. So it helps modify immune system behavior in a good way, right?

In a healthy way. And it also is anti-inflammatory, right. So a lot of the herbs are anti-inflammatory and multiple mechanisms. The herbs themselves are anti-inflammatory.

But also when you create balance, you address all of those in those pro-inflammatory conditions that we are just talking about. Right.

Biofilm and Oral Microbiome

So if you can help reduce or diminish the gram negative growth, the growth of gram negative bacteria in the gut, then you're also reducing inflammation that way.

You're helping to balance and restore immune function. And balance is really where it's at. Right? So it's not like you alluded to that we need some inflammation.

We need, but we also want to keep it in check. So it's really finding that balance. And botanicals are really such a beautiful way of doing that. And so that the biocide is that a tincture of botanicals that have some some of the research has been actually published on this botanical formula.

And some of it is pilot research, but we have a really extensive amount of research. And it's it's fun as a scientist to work for a company that's willing to put some money into understanding the mechanisms and really proving that the product works.

So I love to yeah, I'd love to talk about some of that research. Can you take us through like some some studies have been done. Sure. So absolutely. And so we have we have two published research.

One is a human clinical trial, which is the gold standard, right, in the industry. And so that is on immune system modulation, and that's our throat spray.

So the biocide in throat spray is biocide. And plus, alcohol to help with dispersion to the back of the oropharynx. So it's three pumps three times a day.

And in our research, it had a cost of 66% increase in what's called Secretary IGA, which is one of the immune markers or a mute. It's an immunoglobulin that helps to tag, any pathogen.

So meaning a bat, bacteria or virus so that the immune system identifies it and kills it. So really important right where we be, you know, right where our immune system meets the outside world.

So that was exciting for us to see and immune modulating in that. We've also had reports this isn't research, but, reports from doctors before and after testing showing if people have elevated IGA in their gastrointestinal tract, that's often a response to overgrowth of microorganism.

It's in the gut. And we'll see that also come down. And again, when you're working with products that support healthy balance, they become more adaptogenic right where they work with the body to help restore balance.

And that's one of the cool things, is that we were able to see both of those things. The other published research was on Borrelia, which is the bacteria that causes Lyme disease.

And we were able to show in vitro. So in a in a petri dish, it caused 97% cell death in ten minutes, with either spider key, round body form, the cell wall deficient form or the biofilm form, which is really remarkable because Doxy cycling, for example, in Eva sapi is work because 20% and yeah, I think it's 20.

It might be 10%. So look this up if you want to know, don't quote me on this. But a certain percentage, a significant percentage of them will turn into the round body form, which is then a can be a cause of persistent infection.

That didn't happen with the Biocide. And it didn't we didn't create that polymorphic shift. Not only that, but it killed the round body form also. So very exciting.

And I will say, you know, in northern Minnesota, just even this spring, one of my dogs has had like 15 year ticks. The other ones had about ten. And this is such a powerful tool for me for acute, exposures.

And that's really what drove me to talk to Doctor Fresco. Is that this to me, that liposomal biocide. And so we have that biocide in a form that's, that is a liposome, which means it will go directly from the mouth into the bloodstream, access blood, lymphatics, maybe central nervous system.

And, and our, our research showed better intracellular penetration, 74% better intracellular penetration with that, with the liposomal form, that and being able to watch that work from a clinical perspective, it's it's really remarkable to me.

It's like it's always in my first aid kit. And I'm never out of that one. Right. Because it's so, you know, topically or, you know, orally or it's just so easy to get it where you want it to go.

And, and so, you know, broad spectrum. How does it, is is there any concern about taking it too much? Well, in too much like changing the flora. So I'm going to just put you back into harmony.

It's a really good question. So two things. One is that it's been around for over 30 years, and we've never had a reported adverse response to long term use of the product.

And just to put our money where our mouth is or I think we are doing research, we just finished pilot research with some genomics, which does, full genome sequencing.

BioCidin Products and Research

And we were able to evaluate what we're looking at is what happens to the beneficial microorganisms when you expose it to biocide. And for two months, and we actually saw an increase in probiotic abundance using the Biocide.

And so quite the opposite of where you might see a unilateral wipe out using, an antibiotic or even a high dose like oregano oil. Or if you're using some even better, excuse me, botanicals at high dose can be harmful, right?

To the to the micro organisms, the balance of microorganisms. That didn't happen with biocide. And we saw it actually increase in romance. Yeah. You seen a which is a keystone.

It's called a keystone species. It's a placeholder for other probiotic microorganisms to, proliferate. And so it becomes a, that metagenomic richness that we talked about earlier.

Akram Mansi is one of the main ways to help produce metagenomic richness. So we were we were not expecting that to see after Mansi you come up, so you can imagine our whole research team was doing sort of doing the happy dance when we saw Agar Mansi come up, you know, and I clinically that's what what I saw, you know, I saw people improve where we didn't have to pound them with probiotics afterwards.

We I think it's wise to use probiotics. I think it's not. There's nothing wrong with that. But I think the bioscience on its own, from what we're looking at with research and we're replicating that right now, you know, IRB, which means that it will be publishable research.

It's in it's more formal research done by an independent facility. We're looking to replicate that so that we can publish it. And, and we can actually be more forceful about, about any kind of claims on it, you know?

So, you'll hear me, you know, in this conversation talking a lot about my experience with the product, really the only place that we make claims as a company is on our published research.

Everything else is just our experience, you know? The, can you tell us about it? There's the throat spray, and I believe there's also dentist side and product, is there not?

Yes. There is, there is. So the bio side is also in the toothpaste. And I love the bio side in toothpaste. It's called dental side. And it's an easy place.

It's not another supplement to take right. But it's an easy place to start to restore balance in the microbiome. So that's, that's an easy go to it has the bio side in it and then it's a natural toothpaste base.

So once you once you know what Biocide is, we have seven products that contain Biocide. And then you pretty much just pick which one you want based on where you're trying to get in the body. Right.

What you're trying to what you're trying to do. And then in addition to the toothpaste, there's an oral rinse, and that oral rinse has the liposomal form of the biocide.

And again, liposomes mean a deeper tissue effect. So when you're if you have a history of periodontal disease cavitation is root canals. You would be more well directed to reach for the.

You can use them both together. They're designed to use together. But the liposomal one well would be more likely to have a deeper activity than just the toothpaste.

So you can start there easily. Right? Okay. And that makes a lot of sense. What, you were mentioning the, has

there been any type of, studies looking at lab lab testing to see if there's has been any type of lab testing?

I know we can't tell, but, zandile and perhaps look at leaky. You got to see if there's some improvement in that with, with the product. So you can you can look at LPs, antibodies, and that tends to rise and fall before actual serum levels of LPs does.

We haven't researched that, but we just started we have our first people starting in that same study. We're evaluating LPs, both antibodies, IGA, IgG.

So two different antibodies against LPs. We're also looking at two different inflammatory markers or three actually we're looking at interleukin six high sensitivity CRP.

These are both markers for chronic inflammation. And then we're evaluating from boxing as well. And from boxing is kind of a downstream metabolite of that lipopolysaccharide, LPs. And it has a really strong connection to cardiovascular disease and aging.

And so we're really excited to see what happens. We we did do preliminary pilot research with that with that marker and had some really stunning actually results for people we had in this research organic acid testing.

Have you you know that it's through Great Plains. We also combine the thrombus. And we did that, with liposomal biocide and Alivia and GI detox. And we looked at mold toxins, the organic acid testing, glyphosate levels and, that's from boxing.

And we're we're just still in the, phase of trying to evaluate the data. But we were able to see markers really shift. So throw in boxing, which is that inflammatory one.

But also, really cool is that we had one fellow who lost in 60 days, lost 60 pounds on the, on that protocol. And it was inflammation. It was, weight that was a result of inflammation.

Right. So inflammation affects insulin resistance and, and blood. So blood sugar regulation. And this guy, I mean weight inflammation based weight I don't know.

Do you see this in your clinical practice as well? I mean when you reduce inflammation and weight tends to especially for men, I think at least in my clinical experience, their weight will just, will just fall off.

And I saw that actually in my husband as well when he took out his inflammatory foods, he like, you know, just like that, he dropped 40 pounds, you know, like like, oh my gosh.

You know, it's just amazing when you reduce inflammation, what happens for people who, you know, in terms of balance, like we were talking about the button balancing the microbiome, but really regulating inflammation in the body is what allows us to restore balance ourselves.

Right? It allows our our chemistry to come back into balance. So it's pretty amazing. What's so awesome? Is there anything you'd want, to just send off with, like, to let our viewers know?

Like, what's the main message that you take back? Let's see. That's a that's a great question. Now, I feel like I have an opportunity. Let's see. Main message.

The first thing is not to or to give to give lower intervention therapeutics a try. Rather than leaning fully on things that I think were it really culturally, we think, you know, maybe Colgate and over-the-counter medications and all these are going to have a stronger effect, which is not necessarily true.

Right. And so working, changing the way that we think about our health so that we are giving the body the support that it needs and working with harmonizing.

And that's what botanicals really offer. And being able to I mean they've been around for millennia, right. We've been working with these botanicals for millennia.

So giving it a shot, you know, learning more about botanicals, even if it's just starting with a tea.

Lifestyle, Botanicals, and Closing Thoughts

Right. But starting to incorporate some of that. The what? That the beauty that the earth provides for us. And trying to separate a little bit from I think it's really in our face all the time, all of the pharmaceutical commercials and, and I'm not I know pharmaceuticals have a, have a place, inappropriate place.

I just think that, people could really benefit as well from, from the of botanicals. So I'm not badmouthing that, but just trying to encourage people to, to give it a shot.

And to the other thing is, you know, pay attention to your lifestyle, also, so making sure you're getting enough sleep that you're connecting with your loved ones, that you're, you know, keep staying away from toxic foods and, high, high carbohydrate diets and really focusing on supporting ourselves.

So botanicals are only one aspect of a healthy lifestyle. And making sure I think it's easy to forget those things. It it's it sure easier to reach for a pill or a supplement even than it is to make sure that you turn off your your social media by 9 or 10 p.m., right, and get to bed like that's harder.

Or trying to keep, you know, some high carbohydrates out of your diet or making sure that you're working on your relationships. You know, that all of that stuff is harder, but just equally or even more important than anything that you could, that you could take. So. Well, thank you.

I mean, I've used the product myself, and, and I like that. I like to read the philosophy that if not just to write like this, it's a, it's a mind shift to not go and try to like, think that, pharmaceutical based foods treatment is the is the answer.

And I think you're right. It's more about bringing balance. And I think a lot of treatments are about going in there and killing the bad stuff or replacing, I think here this is a different approach.

So this is you know, hats off to, Bio Botanicals for creating this product. I think it's great. Yeah, it's a fun it's a fun place to work. And it's, it's it really changes you.

My experience as a practitioner, it's so rewarding to watch people come into their own and to heal. So. So where can they go to get, learn more? So it's, there's there's a distributor here in Canada, so, we will put that out there in the, in the notes for everyone to find out how to order for Canada, but.

Okay. Yeah, for the US people. Bio side income. Yes. Okay. Yep. Exactly. And that's bio sedition. Yeah. Okay. Perfect. Thank you so much. Thank you. Doctor gold okay okay.