## Introduction to RGCC and Dr. Petersen

Welcome to another episode of the Healing Lyme Summit. I'm your host Dr. Myriah Hinchey. And today we're going to be talking about RGCC testing for Lyme disease, as well as associate therapy.

So here to lead this discussion is Dr. Andrew Petersen. Dr. Petersen is a nationally recognized Lyme specialist and he has been in practice for over 24 years and is the chief of staff for Forum Health.

So Dr. Petersen's approach is holistic and he treats environmental toxins, endocrine, autonomic and electromagnetic dysfunction as well as infections.

He has dedicated his career to thinking outside of the box, and what he does goes way beyond conventional testing and treatment. And I am honored to have him here with us today.

So welcome. Dr. Petersen, tell our listeners a little bit about yourself and how you came to specialize in treating Lyme disease. You bet. And thank you Myriah for having me.

So, yeah, I grew up the son of an Army officer and the United States Army. And so we moved all over. We lived lots of places growing up Alabama, Maryland, Texas, Colorado, South Dakota.

Um, I, uh, but I, when I, when I went to work as a physician, I worked on a really little tiny town in the panhandle of Texas and found that when you work in a small community, the town, the town had 2000 people.

I was one of two doctors there. You see the patients everywhere. You see them in the grocery store and the football game and the line at the bank. And they, you know, show you their rash and they ask all the questions no matter where they're at.

And one of the things that's pretty apparent is that we are really helping people get better. Right. We lived a long ways from from a specialty, you know, university clinic.

## How Dr. Petersen Became a Lyme Specialist

Right. We were 3 hours to Lubbock and 5 hours to Dallas and 3 hours to Oklahoma City. And so to convince one of these farmers to go see a specialist Texas Tech or UT Southwestern was hard.

And then when they came back, they were diagnosed with the exact same thing that you had told them they had. And maybe their treatment was a different brand of the same sort of medicine.

So it became pretty clear that all we were doing was managing their symptoms. We weren't finding the cause of what was wrong. So that's, you know, like I think many physicians, that's what started me on a journey to try to find out how do I help people actually be healthy as opposed to just give a name to their collection of symptoms and then manage it.

So I started on that journey and focused primarily, I would say, on on hormones and nutrition and gut health initially and said, Oh, let's help people be healthy.

And I moved here to Utah because my wife's family lives here, and I saw a young man who had not been able to get out of bed for 18 months, just dad, you know, asked me, Hey, can you help him?

And I didn't think I could, quite honestly, but I said, Well, I'll I'll do some tests. And he came in. He served a mission for his church in Madagascar.

So we tested him for all sorts of stuff. And he'd already seen the infectious disease specialist in Iraq had been treated with antibiotics for a period of time.

I think three months. But he tested positive for all sorts of things. He tested positive for brucellosis, he tested positive for Bartonella, he tested positive for Lyme.

He tested positive for all sorts of viruses. And I was way in over my head. But there are a lot of great mentors in the Lyme community, and I just learned from them.

And the reality is I never intended to be a Lyme specialist. But once you're willing to take care of a patient that's chronically ill like that, then people are like, Oh, he'll he'll listen to me and help me.

And so I couldn't avoid it at that point. The reality is you, you I think you are called to do what you do by the people that are calling you, not because of yourself.

So that was my experience. That was what led me to to be a lyme specialist. I served on the board at ILADS because of the great people that I met there, like Dr.

Horowitz or Dr. Bruce Burrascano And, you know, being able to spend a little bit more time learning from them was a real benefit and a pleasure. And now when patients come to see me, I have to sort of reorient them and say, look, I'm not a Lyme doctor.

I'm actually an integrative, holistic physician that wants to make sure that you regain health. And one of the things that could be affecting you is this infection called Lyme or any number of other infections.

But it's not just infections either. So I think that's great. That's fascinating. So, yeah, it's hard. It's like once you once you treat somebody that has Lyme or once, you know, once you act as that medical detective, that really helps them to figure out the underlying cause is right.

Because even when you have Lyme, that leads to a whole bunch of other underlying causes. You know, you, you start attracting all of these patients because, you know, you, you get that reputation that you're going to actually figure out what's wrong with them and therefore then you know how to heal them.

Yeah. And so, you know, I was a Lyme doctor until I became a mold doctor. And I was a mold doctor until I became a toxin doctor. Right. And you're like, wait a minute. No, no. Right.

I'm just a doctor that's trying to figure out the cause. And there's a bunch of causes. It's a soup. One ingredient is we might call it chicken soup, but that's not the only ingredient in the soup.

It's a perfect analogy. Yeah, it's like the tick soup, but. And the environment. So tell us a little bit more about farmhouse. Yeah. So Forum Health was formed five years ago now and the this is another thing on sort of my journey of becoming an integrated physician, I joined a forum and did a fellowship.

And what I would notice when I would go to a forum that's the American Academy of Anti-Aging and Regenerative Medicine, I would go to their conferences and purportedly they have 26,000 members at the time that I was attending.

And I would talk to these other doctors that were in the same fellowship classes with me, and I'm like, Well, where are you practicing? Oh, well, I work in California. Oh, what do you do?

Well, I work for Kaiser Permanente and I'm like, You're doing this fellowship and you're just doing regular medicine. Yeah, I just don't know. I mean, it's scary. I don't know where to start.

And it was just so disheartening to me that that it seemed like three quarters of the people learning what we know aren't able to jump in with both feet and start doing it right.

Then there was the other aspect in my role at at ILADS I would see that people built an island for themselves that was and they didn't really build it.

Their patients built it, but that they were really sort of singular focus. They only did this one thing and their patients would benefit from all sorts of other things.

But because the patients were all coming for hyperbaric oxygen, that's what they offered or their patients were all coming for, you know, like in my case. So that's all they did.

And so the the idea of forum health was to help get these islands of care to be more of an archipelago, like all maybe they're islands, but they're working together.

And to get some of these people off the sidelines that know what we know and want to participate, but don't have the either the support or the courage or the just reckless abandon to say, I'm going to do this.

So Forum Health now has 35 offices around the country and growing. We we've got two more offices that will probably close on in the next two months. We're we purchase offices from successful practitioners and they continue to work with us.

We also start offices de novo and it's everything from hormone therapy to stem cells, from Lyme care to mold care.

## Forum Health and Integrative Care Model

Right? And what I think we're achieving is these people that are doing one thing are now able to offer all these different things at their office because they have the backend support from the business team and that sort of thing.

So for the doctors themselves, it turns out to be very helpful because now they don't. We go to conferences and we come home and we're excited to offer a new service, but it just takes too long and it takes too distracting.

And so, you know, as a provider, I think you're a little disappointed because you'd like to do this new thing for your patients, but there's just no time to implement it or the sort of support to know how.

So that's the idea behind Forum Health and we're growing nicely. And I think the physicians and the Chief of staff reform and so I work with the physicians a lot.

I think the physicians are happy and excited about the things they can do now that they couldn't do before and the support that they get in this collegial environment of if I don't know the answer, well, I'm going to call Wally Taylor, who's been a mold specialist in the Austin, Texas, area for the last 35 years.

He'll know right where I'm gonna call Steve Morris has been treating Lyme disease twice as long as I have. Right? He'll know. So that's that's an amazing concept.

That's great. Thanks. Yeah, it's going well. Good, good. So why don't we start out by tell our listeners why you think why is Lyme such a controversial disease to diagnose and treat right.

Great question. And anybody listening, I'm sure maybe knows these answers or at least knows parts of these answers, things that always present the same.

Everybody has figured it out, right? If you get strep throat, it's not a mystery. And everybody that gets strep throat or almost everybody that gets strep throat presents with the same symptoms, they have a fever and a headache and maybe a stomach ache and their throat hurts, Right.

And so we don't mess it up a lot. We're not unsure. Well, yeah, it seems like you test positive, but you don't have the symptoms or your you're you're not you're not following the path.

Right? Right. But with Lyme disease, that's not the case. Um, not everybody that gets Lyme disease gets equally sick. Not even close. In fact, I would estimate that probably a third to half the population would test positive if we just tested them at random.

They might not have very much of the bacteria, but they have some and they're totally fine now. When they got it, they might have had some symptoms, they might have had some inflammation as a consequence, and they were a little achy.

Just like after someone gets Epstein-Barr, they felt a little crummy after they contracted Epstein-Barr, but they don't have chronic Epstein-Barr now that they're 30 or 40, that that hasn't bothered them.

Again, Lyme can be that way. And so I think that makes it difficult for the conventional approach to say, yeah, chronic Lyme is real. The other part of that, the counterpoint to that is that just because you have Lyme and you don't have any severe debilitating symptoms doesn't mean it's causing you no symptoms.

And I would say, in fact, that's where so too can be valuable for some patients that are relatively healthy but not as healthy as I'd like to be. If you have a microbe living in your body that creates inflammation, it's going to cause issues, right?

If it doesn't cause big issues, that's great. But if it causes little issues that, you know, 15 or 20 years down the road, you're more achy or you don't feel as sharp mentally, well, get rid of the microbe. Right.

And so I think it's just because we confuse normal aging and we just say, well, that's normal to have arthritis at age 56. It's just osteoarthritis and we ignore it with disease or we say that's not disease.

And to some extent, if the disease isn't always the same, then we can't agree that it's a disease. So chronic Lyme is just one of those scenarios where it doesn't affect everyone the same.

Your genetics has a fair amount to do with how sick will it make you? Your immune reactivity has an enormous amount to how sick will it make you? How much your immune system either controls the population or doesn't has something to do with how sick it makes you, where it decides to live in your body.

And therefore you might have joint pain versus brain fog versus insomnia. And so it's just it's difficult in that respect. As far as testing goes, the example I like to use with my patients is it's like looking for a needle in a haystack.

This is not unique to Lyme. If you're trying to identify how much hay there is in a haystack, that's not an impossible task. It's a question of how accurately you did that. Right?

Did I count every piece of hay? Did I weigh it by the ounce or the ton or the pound? And so that's sort of like checking what my sodium level is, right.

If if the lab is inaccurate, it's not because I had zero sodium or I had sodium. It's just did it find that my sodium was 142 or 145? Right. But looking for something that I shouldn't have, Like I'm not actually supposed to have Borrelia burgdorferi floating around inside of me.

There's very little of it to begin with. And so finding needles in haystacks is tricky. And you can, you can use different methods to do that, right? If I used an electromagnet to find a needle in the haystack, it would work better than sorting through it one piece at a time.

But what if the needles were made out of bone instead of out of steel? Or the electromagnet would fail? Right? And so sensitivity. Did my test catch what I was looking for is a different thing than specificity.

Did the positive test accurately reflect that? I do have it, and that balance between those two things is difficult. And so the scientists, you know, people that work at universities and are just doing research, they're always coming up with new ways to find stuff and they have come up with much better ways to find things.

But then we're also falling back on this concept of insurance based care is always going to provide the latest and greatest, which is clearly not true.

## Why Lyme Disease Is So Controversial

You could prove that just by saying, Does insurance cover a genetic test like 23 and me? And the answer is no. But it is the best genetic test you could do.

And it's not that expensive, but you got to pay for it, right? Your insurance would be more likely to pay individually for your mTOR FFR and your CMT, and they're going to spend more money because they're not in the business of doing science.

They're in the business of doing business right. So there's just so many reasons why this is hard and it's politically motivated to some extent, and it's just somewhat about not intentional, but ignorance to some extent.

And so it's it's really unfortunate because it's the patients that end up really getting worked over the most and confused and suffering. And often told that they're crazy and, you know, family's falling apart and it's just terrible.

So we lack of understanding in that respect. I don't think that conventional medicine intentionally marginalizes these patients because I practiced that way for ten years.

I remember taking care of a cowboy in Texas who would come in and had chronic prostate infections, and I would treat him with Dr. Cycling and he would feel like his prostate infection would get better after about six or eight weeks.

But then he would say to me, Oh, doc, can I stay on this? When I take it? I'm not as achy. Like I feel so much better and for whatever reason I can work longer.

I mean, this was a real cowboy. That's what he did professionally as he rode a horse and went around and moved cattle for a rancher. I guarantee you he had Lyme disease.

But I had no idea. Right. And so every single time when he was done with his six weeks and his prostate didn't hurt as much. Right. And he's riding in a saddle every day, I'm like, No, we can't keep you on Doxy because it's bad for your gut.

And so this poor guy, I'm not trying to marginalize him, but he didn't get his Lyme treated because I didn't know anything about it. And he's asking, Can I stay on it?

And I'm trying to do the right thing and not hurt him. Right? So, you know, it's not it's partly out of ignorance. It's partly out of arrogance. There's all these reasons. Yeah.

Now and I try to tell my patients to like, you know, doctors aren't maliciously not learning about Lyme. We learn what we're taught in our universities.

And then typically there's a family member or a friend or a patient or something, right. That forces us to learn more about Lyme and tick borne disease and environmental medicine.

But so we've talked during other interviews here as part of the summit about various methods with testing rates. So we've talked about direct, we've talked about indirect from the indirect, we've looked at antibody response like IGG exam, we've talked about T cell response.

We're going to talk about a different method of testing our GC. C So can you tell the listeners exactly like what this, what this method of testing is and how it would differ from these other methods?

Yeah, good question. And actually RGV CC they do own a lab called Bio Center and it's a PCR lab and it's not a

different sort of method of testing. It's just PCR testing.

Okay. What RG CC does as a lab is not primarily testing. Their primary focus is on making a therapy called oligonucleotide therapy. And so in order for them to do that most efficiently, you're already going to do another test.

Okay. So if I, if I have a lyme patient and they come in and they're like, I want to do this oligonucleotide therapy, this site therapy or CO2 therapy, I'm going to test them with a test from a genetics or from vibrant America, from DNA connections or from T labs or from whatever lab galaxy.

It doesn't matter. The lab I use, as long as it's a reputable lab. The reason that I need a test to be done already is because they're going to do PCR amplification for the specific microbe, the genus, and the species of the microbe that we found.

Okay, so for example, if I do a vibrant America test, which is they do antibody and PCR testing and I don't have a preference for that lab, I like to think of it as the Honda ridgeline of Lyme testing because it tries to do everything it doesn't do anything perfectly.

Okay. My dad has a ridge line, I have a dodge. My truck is a more of a truck, but his truck is more of a truck and a van and a sedan. Right. So it sort of sucks at everything, but it does everything. Okay.

So don't take this as an endorsement or a criticism. That's the test I do. And the reason I do it, because it tests for 30 different things. Right? Right.

And then I can say, Oh, this patient has Borrelia afzali and they have Borrelia burgdorferi and they have Borrelia Miyamoto and they have Bartonella Hensleigh and then Sonii.

Right. And we'll start with that and then we'll say, okay, they have these five things. Of these five things, these two are the worst, right? The Miyamoto AI and the Barden element, Sony.

Now, if I send the patient's blood to our JCC and I have to send them a positive test because and then I say, this is the one I want you to make. Okay, Now they can put in the start codons for the specific thing, and they can amplify the DNA for that microbe.

And then they can make what's called an oligonucleotide, which is essentially a piece of marijuana that's got esters on either side. So it's going to silence that particular gene that they found in that particular microbe.

Okay. So let me interrupt and ask one question. So it does not matter if the patient gets a positive PCR or not just having an antibody response that is positive and knowing what species of what organism is enough to then have the ASO team made.

That's right. That's exactly right. And and what's important as far as testing goes is that they have an either an antibody or a PCR test. It could be serum, it could be urine.

And I actually have had our GC accept a lab that was a I think T Labs does some sort of an immunofluorescence assay. They've taken that too. Right. What they have to do because they're part of the process of making the SRT or validating that the SRT would work is they're doing their own PCR amplification.

Okay? And when they do their own a PCR amplification, they can do it more efficiently knowing what they're looking for. Does that make sense? Yeah. Okay.

Because they can put in just the right start gonads. So now, even if there's not that much of the DNA, they haven't that their likelihood of amplifying what they're looking for goes up.

So now they've found the thing. Then they're going to compare the DNA because, you know, they're unique genes that are only found in any one of these species.

And so they find a unique gene that is also not found in humans. And then they can silence that gene. And if they silence that gene, well, then every time the microbe replicates, it actually can't finish the job.

And so it dies because, you know, bacterial replication, you've got this DNA, it opens up, it starts to replicate on this end, it starts to replicate on that.

And now you've got two pieces of DNA. The DNA migrates apart, the bacteria tears in half. Now you've got two bacteria, right? That's how Lyme makes babies or bartonella makes babies, right?

So when it does that, the oligonucleotide molecule simply grabs on to the gene that it has targeted. Now, replication can't occur and it can't go back together and it can't finish the job.

And so it dies. Awesome. So how effective is this, let's say, for Borelli of Living in a BioFilm, like, can it get past it? Or is this a case where you would have to use various agents to help to break down the biofilm and expose, you know, the bacteria to this agent? Right.

That's a great question and one that patients ask all the time. So the limitations that occur for antibiotics are still the same limitations for CO2. With that respect, like if the microbe doesn't replicate, it won't die.

If the microbe is in some place where the CO2 molecule doesn't get to it won't die. And that would be like a biofilm, right? So it's helpful to make sure that the like if you let's say you had an abscess that the CO2 didn't go to.

Well, there you go. So that's why you got to see your biological dentist still. But think about this. An oligonucleotide is 19 base pairs long. That's how long they make them.

It's kind of aster on either side. This is one of the smallest molecules that you can imagine, right in a cell inside the nucleus, you've got 23 chromosomes of DNA and we're talking about 19 base pairs of that.

So that's proportionally how small it is, dramatically smaller than the bacteria. So you don't have to worry about. Well, will it crossed the blood brain barrier.

I was just going to ask you that. So it will pass the blood brain. It's going to go to all the tiny places, but it still has to. It can't Well, let me really phrase it this way.

It can go to all the tiny places, but it still has to be carried there somehow. Right. So just like oxygen goes from the mom to the baby through the placenta, this would have to go from my circulation to my brain the same way that, you know, all the nutrients go into my cerebrospinal fluid.

So it's it's not being actively transported by anything other than what would actively transport these little tiny pieces of DNA of am RNA. Right. But it can get there because of its size.

That's not a problem. BioFilm does matter. It's probably a good idea to do something for biofilm ahead of time. And I've treated probably over 500 patients with that.

So too. And the effectiveness is exceptionally high, but it's not perfect. Right? And that's anytime you have a new therapy that's really promising, like Disulfiram, I used it a lot back when it first came out.

I still use it quite a bit. It's still a great therapy, but it doesn't work for everybody. And I would say assault isn't the same like this. Just like everything else. It works amazing, but not perfect.

And that's a limitation is biofilm. Right? So yeah, I mean, I don't think that there is one thing that works for everybody, right? Different things work for different people depending on what infections, what co-infections, what opportunistic infections, what else has been broken down the state of their immune system.

All of this. Stuff. Yeah, as far as SOTU goes in that respect, what I would say my experience has been is people

oftentimes don't realize all the things that they have.

They did a test, maybe they did, you know, what is it called an immuno spot where they Gen X or something and they know they have Lyme because that's all they looked for, right?

They spent $400 and that's the what. So with what they found, they don't know that. They also have the ABC Article II and there's not very many labs that test for that.

And so how would we know to treat for it? And so when I see patients that did assault and they didn't get better, I don't have any doubt that the T worked for the thing that we targeted.

I actually have doubt that they probably have a whole bunch of other stuff that we didn't treat. Right. So can you use aso t simultaneously for multiple infections or would you go after each one of them at a time?

So you you don't want to treat a bunch of things all with one infusion because each has a T is genetically targeting one microbe. Okay. And you are going to have her timer of reaction just like you would if you took antibiotics or herbs or whatever.

Right? The Turkheimer reaction is more protracted. It takes more time for it to occur and it's not as severe. And that's because this is not a great analogy, but if I was trying to eliminate humans from the world, I could shoot them, right?

But that would probably attract attention. People would say, Hey, there's a problem, right? I could put birth control in the water instead. I'd make a lot more progress that way and people would not notice it.

Right. That's what's happening with this. SBT is you're preventing replication, but you're not actively killing. And so the number of Lyme funerals happening in your body is the same as it was going to be anyway the next day and the day after that and it after that.

Right. It just fractionally becomes less and less and less. The CO2 molecule floats around doing its job for six months.

## How RGCC SOT Testing and Therapy Works

So you do have a Turkheimer reaction, but it's not as severe and it probably is just this mild thing that goes on for several weeks, right? So to answer your question, you can do an SRT for Bartonella and then a week later do one for Bbca and then a week later do one from Lyme and then a week later do one for Alicea.

But you want to wait at least a week in between each one. And when patients come in and I see them, I explain that to them and then I say to them, But you might not want to do your second test or two at seven days, you might want to wait two or three weeks and we're going to find out on day six, you're going to tell me, right?

Because you can always reschedule coming in to get your infusion. You. But there's no reason to get your next infusion if you're still hurting from the one that you just got.

Does that make sense? It totally does. And I have this conversation a lot with patients and with other practitioners that I'm training because, you know, we all think of Herc says, Oh, it's a temporary exacerbation of symptoms.

But like, you know, I don't think people really realize that like when somebody is Herc, seeing their inflammatory cytokines are kind of going through the roof and you're increasing cell damage and you're increasing acidity and like you're actually damaging tissues and you're actually indirectly helping that infection and live in the body, right?

So yeah, I think it's super important to, you know, to try to mitigate and deal with Harkes as instead of just piling more and more and more on and saying, hey, just get through it.

The right way, I explain that to my patients is, look, there's the inflammatory cascade is actually helping, but only to a certain extent. And at a certain point now it's causing harm to you, right?

You want it to cause harm, but you want it to cause harm to the bugs and not harm to you. Right. And so you can't be a hero and push through this. You have to cause you have to allow just enough harm to occur that the bugs are injured and not you.

So it's like running a marathon, right? Like you, you have to pace yourself. And maybe at mile seven you actually walk for, you know, 200 yards. That's okay.

You're still finishing your marathon and you're not winning an Olympic medal, but you'll get to the finish line. So do you do a lot of prep work with your patients like we spend, you know, a decent amount of time trying to deal with people's guts, you know, because like, obviously, if you have impaired type junction and you're leaking all of the toxins back in like your hearses are going to be way more severe because you cannot detox.

Do you do other things to help to prep your patients? And like, do you use binders and things like that when you're using our society? Yeah, absolutely.

But I guess that goes back to the the holistic nature of what we have to do to really get people healthy. The things that I describe to patients is the reason that we're sick.

There's sort of four environmental stresses that make us sick. There's microbes, there's toxins, there's electromagnetic frequencies, and there's trauma slash stress, and we've got to address all of them.

And it's a it's an all for all the time approach to getting you better. And so while the anxiety is only addressing your microbe, we got it. And when I talk about these four things, your gut modulates or mediates all of them, right?

It's where the bugs live, primarily like your microbiome. It's where you detoxify because we poop out a lot more than we sweat out or out, thank goodness, because otherwise we would stink more. We sweat.

Our our our autonomic nervous system is mediated by the gut, right? That's where the enteric nervous system tells the vagal nerve to tell the brain whether we're in fight or flight. So it's all connected there.

So yeah, you like I use lots of immunology from in. Well, I use lots of transfer factor from research nutritionals. I love saying abiotic, which helps the microbiome.

It's a fecal transplant, right? This is not an advertisement for any of those things. But if people are listening, just go online and get them because they will make a difference.

Cleaning up the toxins, fixing the tight junctions, critically important. The other thing that I would say that I believe is every bit as much part of your heart's reaction as the the die off and the like, the you've got to clean up this mess is that when a microbe dies, it doesn't disappear.

It's just dead and it's floating around dead. And your immune system has a lot easier time seeing floating around dead stuff than hiding, active, alive stuff.

And so your immune system upregulates in a lot of the immune cascade, the inflammation of immune autoimmunity gets worse. And that's part of the horkheimer reaction too.

So things like your naltrexone or low dose immunotherapy, like if I can put a patient on low dose immunotherapy and see good improvement before I do, they're so t fantastic because now when I do, they're so t not only will their hurt less, but they're going to recover long term, far better because their immune system says I can handle this. So.

Right. That makes sense. Okay so are there instances. So what I'm understanding is that this is kind of a one treatment for species or do you sometimes have to do repeated treatments?

Yeah, unfortunately, sometimes you have to repeat a treatment for bacteria. That's unusual, but it's not impossible. And that's because bacterial love to replicate.

I love little analogies because patients understand the bacteria are like rabbits. They just if they just had babies, they're having them again and again and then again, right?

They don't stop. There's no family planning for for rabbits or bacteria. They're just going to divide all the time. And so if you've got an SRT molecule floating around for six months, it's probably going to kill all the bacteria.

If it didn't, it's because of something like biofilm or, you know, maybe an abscess, something like that. There was some amount that it didn't get to, but it's unlikely that it was because it didn't divide.

Now, while that's broadly true, what if I have a round body form of Lyme that's not replicating. Right. Well, it's not going to kill that. Okay. So that's the limitation with bacteria, with viruses.

On the other hand, what viruses are more like people. Somehow they just they start having kids and then they stop and then they start again and then they stop.

And so if you're Epstein-Barr isn't active right now, the it's is not going to kill. And so the effectiveness is slightly lower for viruses than for bacteria with respect to one and done, there's plenty of patients that are treated for Epstein-Barr and I'll do a treatment and then six months later I'll do another and then six months later I'll do a third.

And that actually, in my experience, I have better results than if I just say, well, treat it once because I may have killed 60% of it with the first treatment, but I was.

I'm unlikely to have killed 100% or 95% right. That's another, I think, area that we could debate as clinicians and scientists would certainly weigh in with a different perspective to do.

We kill 100% of a microbe or do we just kill a fraction of it that is high enough fraction that now is irrelevant? I don't think mathematically it's possible that we kill 100% of very much of what we're trying to eliminate.

So yeah, I agree with that. And I think in the end, really, it's your immune system, right? Your immune system has to be recovered enough and functioning normally so that it can stop these things from replicating and kind of hold them into remission, I guess is the word I used with my patients.

Yeah, Yeah. And people want to believe when I say it's up to your immune system, they want to believe that. Okay, well, that means that at some point we stop killing it and my immune system will kill the rest.

And even that, I think, is misguided. Understanding your immune system will keep the rest in check so long as you're alive, Right. Because as the bacteria go up, the antibodies go up and then the bacteria go down and the antibodies go down.

And so there's this homeostasis. And so that's why you can get chicken pox. I mean, you don't get chicken, but you get shingles when you're 48. You didn't re catch the virus.

You had it the whole time. Right. But most of us that still have the virus, we'll never get shingles because our immune system is keeping it in check, not getting it all the way to zero.

Right. And so having people understand what healthy is or what a cure is, is important because they think of a cure as being zero bugs. When really a cure is everything works and you're not taking medicines right in my head. That's how I say at home.

If you don't need any more meds and everything's functioning, then you're cured and remission. So the problem with I don't use the term remission because it makes them feel like it's a ticking.

Like it could come back and it could. So I like to reassure them that, yes, it could come back. But, you know, you could also get hit by a bus or struck by lightning.

I mean, statistical possibilities are endless. You could also, if you buy a ticket when Powerball. But I wouldn't count on it. Right. So, yeah, I try to tell patients I'm like, okay, like, you know, as far as a cure goes, I don't know.

To me, I'm like a cure. You would have to be able to prove that it's 100% gone, right? Yeah, that's right. Yeah. Well, exactly. But I'm just more honest.

Yeah, remission is more clear because. But what they want to know is, am I well and be like other people and that the answer to that to us. Yeah. So I totally agree.

And yeah I think that's so dependent on recovering the immune system. So how much to one of these treatments costs like the whole like you know obviously not your initial testing because it varies widely depending on the lab that you use.

But once you've sent it off and you're having, you know, you're having the the preparation done and then you're getting it back and then you're actually going through the anxiety therapy, like how much what, one session for one organism.

BE Right. Great question. So for the first organism and I should mention not that this is super relevant to these patients, but SARS was originally well, I mean, R. G., CC, the lab that makes these assault is originally focused on CO2 for cancer.

Okay. And So you can do it for one cancer or for one infection. And the first treatment, no matter what you pick to treat is 20 $700 is what we charge.

And each one after that is 20 $100. The testing the you know, to see the doctor that you know, that just depends on the doctor. That's what we charge.

We we have to pay the lab for what's happening. I know that there are physicians around the country that charge more because I see patients that that come here because they found someone that was more expensive.

I'm sure there are physicians that charge less so. And for cancer, you're going to need to do it every six months because the cancer isn't constantly replicating what you're doing for cancer is essentially you're preventing it so that when you are in remission, so you treat cancer either surgically with chemo or with radiation.

And now we can't find a cancer any more. So we're done treating you and we tell you you're in remission. Now we can give you a T every six months to assure that when it starts to replicate and you would become metastatic and reoccurred.

That doesn't happen, right, with Lyme or Tickborne infections or viruses. It's and so with with cancer, it's, you know, basically 20 $100 every six months with with these infections.

## Biofilm, Herxheimer Reactions, and Treatment Prep

It's a matter of saying, well, I got to clean up six things. Okay, well, let's stage it. What do we want to clean up first? We're going to clean up. And the order that we go, it has a lot to do with the co-infections bartonella, but these are going to sort of spiral out of control if we just treat lyme.

So we treat Bartonella first and then the second and then one third. And then I move over to viruses and maybe treat Epstein-Barr or cytomegalovirus or herpes type six next.

Right? And so then you're staging it and patients will spend maybe $7,000 to do the first three. And then we wait and see. Okay, Do we even need to treat the viruses?

Because maybe we don't, right? Because your immune system recovered sufficiently. Yeah. I think a lot of times the viruses are there as opportunistic.

That's right. I think they are primarily opportunistic and so rarely do I have to treat the viruses. But when I do, we we take that step when we've already taken care of the other things.

Very, very cool. So why why do you think that this treatment in particular is I mean, clearly this is what you do, right? So you must think that this is one of the best ways to go to deal with these infections.

So why is that? Why I would say probably more from clinical experience than anything else. I mean, I've followed the Eilat's protocols for antibiotics and definitely had some success, but I didn't have as much success as I thought I should.

In fact, I probably didn't have success. And even 50% of the patients with respect to truly them to that point of remission or, you know, I would say like a physiological cure, they're better.

We're done the same thing, probably more so would be said for IRBs, because patients just aren't that patient. Yeah, so it takes a long time and they just stay on those things indefinitely and that's fine if they're better and they're like, Look, I'm going to just keep taking my cat's claw and my artemisinin.

Great. But you're, you've been taking it for 20 years. I use the ozone, I use high dose I. V. vitamin C, I use U. V. light. I've taken people to Lyme, Mexico, and had them do the plasmapheresis.

Every single one of those things helps. My favorite antibiotic is Disulfiram, but I would say 20% of people can't take it and 40% of people really struggle.

Right? And there's plenty of people that I've taken care of that have They're like they're on 50 milligrams of Disulfiram daily the four, three or four years before they finally feel good enough.

Right. Because they couldn't tolerate more. And I've just found that SRT. So the like let's answer the question and so two causes less of a jerks than everything else I've tried so to seems to work better as long as I hit every problem, then everything else I've tried, right?

I know I can treat the Borrelia burgdorferi pretty well with Disulfiram, but It's not going to do a great job for that issue and it's not going to do anything for Bartonella.

And so what do I do there? I put them on rifampin for the next eight months along with Clindamycin, or I put them on herbs for a year or I have them come in and do ozone.

It ends up being less expensive for them to do so t than to come to my office and do ozone, you know, four times a week or three times a week for three months.

So I would also I mean, from the little bit of understanding that I have at this point, you know, regarding it, it seems like it also wouldn't have really any of the side effects that using long term combination antibiotics would have or even, you know, single antibiotics because you're not affecting the microbiome, you're not causing dysbiosis, you're not increasing, you know, organ inflammation, you know, all of the things of candida, fungal bodies.

It's embarrassing to have not recommended to pointed that out. And and it does it makes perfect sense to me that someone who you're a natural path thinks about that as what matters the most for our health which it is that's the that's the real thing.

Instead of treating the problem, let's make them healthy. It doesn't mess that up, right? Because I have lots of patients that I treated during the first 12 years of my Lyme career with antibiotics, and then instead I got them better, right?

I mentioned that at the very beginning. That was my first line. But I, I spent five years trying to get his got better after I fixed his lot. Right. Like, right.

That was a long process to fix the mess I made and with so you don't make that mess. So that's probably the single greatest thing is that you aren't having to then treat their yeast for the rest of their life.

Right. Or yeah but the right fecal transplant. Yeah. So I think for me, like one of my biggest aha moments in my career was when I realized that like you couldn't I'll still use the word remission.

You couldn't get someone's Lyme into remission and be able to get them off their treatment. If you didn't fix the immune system and like, how on earth are you supposed to fix the immune system if you are actively killing, you know, the healthy, good bacteria and causing dysbiosis, Right?

It's like you can't recover the immune system without a healthy microbiome, right? Like 70% at least of the immune system is in the gut and dependent on our microbiome. Right?

So that was like a huge thing for me. And that is when, you know, at that point I had been doing like integrative, like having, you know, an M. D. doing triple antibiotic therapy along with doing all of the herbs and all of the functional medicine stuff.

And, you know, it was kind of like, wait a minute, why is this group of patients that I have that were only doing functional medicine and herbs able to get into remission and get off their treatment, whereas like I had patients rounding year three year, four year five on this integrative treatment and and then like, something would happen, liver enzymes would go up.

They couldn't stay on the antibiotics or, you know, whatever, and someone would transition over to like this herb only group. And then I was learning more and more about the microbiome and the immune system, and I was like, Oh my God, Like, this is why like when you take a zip pack for, for strep throat, it doesn't take your bacterial load to zero, it just shrinks it to the load that that particular person or their immune system can handle.

And then the immune system takes care of the rest of it. So like when we look at, for example, Borrelia and we look at how it breaks the immune system and how it can no longer act as a sniper, and it's more like the plane flying overhead, like dropping bombs.

And you're like, Oh, hi, If I can't get it back into sniper mode, it's never going to be able to hold this infection in remission. And like, I can't get it back to sniper mode without, like, fixing the gut and I can't fix.

We got Wal-Mart on antibiotics. So, you know, so t actually sounds like a perfect solution to that. Yeah, it is. And and I want it to be one and done and lots of times it is.

But, you know, if I have to do an assault to, you know, again for Lyme or for better easier I still didn't mess up the anti but I didn't mess up their gut again.

Right right. And you know herbs are powerful and it's funny, we want it to be both ways. We want them to be gentle and powerful. Well, they are sometimes gentle and powerful, but if I stay on the same herb for long enough, I can have some changes in my microbiome.

That's the same as eating the same food all the time. If all I need is blueberries and yogurt, well guess what's going to grow the bugs that like blueberries and yogurt? Yeah, right.

And so if you're constantly battling it, no matter what you're using to constantly battle it, you're going to have to chase your tail a little bit with your microbiome and your immune system.

So to to a large extent, so t avoids that problem. I think there's a lot more to to learn about us. So too with respect to well is it do we did we treat them one time and now six years later they're still good?

I don't know. I've only used this treatment for three and a half years, so I can't speak to that. I was just going to ask you how many years you've been doing this.

So, you know. So three and a half. Is it's all about questions. Three and a half. Yeah. Yeah. Do you have any sort of statistics? You know, like, do you know roughly what percent effective?

I mean. I could give you an estimate from my, my clinical experience. I can in fact RG, CC and they're, they've done some clinical trials and their experience with Lyme 95% clinical improvement and with viruses 70% or 75%, 75% have clinical improvement.

But what does that mean? Well, I was just going to say like that term right, exactly. So I didn't like it either. And so I don't really use that to quote two patients and say we've got a 95% chance of being improved.

Well, yeah, but I don't want it improved is not my goal. I want to be better. Right? Yeah, right. Um. From my clinical experience, I would say it's hard to put a number on it.

I can give you anecdotes of patients that are entirely in remission. Totally. Well, and there's lots of them. And then I can give you anecdotes of patients that are.

I definitely have improved. I felt so good. But then four months later, I started to have symptoms return right? It goes both ways. I have almost never had patients that have said it did nothing.

## Repeat Treatments, Viruses, and Effectiveness

Okay, So I find it to be easily as effective as everything else I've ever used from those own terms. Yeah, but I couldn't give you a number. I'm not enough of a scientist.

I'm more of a clinician, so I'm not keeping the data. I will say that's another reason why we formed Forum Health is because I think the data is important.

I'm just to unorganized or undisciplined to record it. Yeah, people ask me the same thing all the time. I'm like, I have no idea, you know, I don't know.

I don't have time. I'm busy treating patients. I don't have time to run the numbers. And their scientists, the pure scientists out there, are frustrated by people like us that didn't write it down and didn't, like, stratify the whole thing.

But, well, those scientists aren't clinicians. That's my opinion. Yeah. Like some scientists can come along and pore through the charts and figure it out, you know.

And inform health. For what it's worth, we're all on this same software and the software is killing the data and we have a data lake, and maybe I'll be able to give you an answer in two years.

When the data lake has had enough data crunch to say, Oh, look, here's the answer. Um, so yeah, maybe, maybe I can give you the answer, but I'm not keeping track.

My software is. Yeah, so I just had a thought. Now, do you, does do you or does anyone combine like AZT with antibiotics? Would that be contraindicated?

Are there people doing you in the room at. The same time. Like. You if you gave them at the same time, it could be counterproductive because I want the bacteria to replicate, think or have feelings, but I wanted to know the coast is clear and make babies right.

So you don't want to be taking antibiotics unnecessarily while you're taking while you did your S. O.. You. But let me use this example because patients they almost invariably someone's going to run into this.

I got my anxiety for lyme and then I got your urinary tract infection or I got a sinus infection or I got bronchitis. What do I do? Right. Well, you take your ten days of antibiotics, you treat it because the set is working for six months and taking your antibiotics for ten days is not going to make all your spirits suddenly go into round body forms.

And it didn't work. Right. It's not black and white like that. This is biology. These things are alive right? And so can you take an antibiotic while you're while you got an acetate?

Yes. But try not to do it if you don't need to. That's true of every time you take an antibiotic. Right. Right. And for the patients that like to like double dip and see all these various doctors at once, I mean, it sounds to me like doing a like antibiotic therapy for these infections are counterproductive because you're encouraging persist or cell or cyst formation, which is going to make the society not work.

That's exactly right. So you don't want to do antibiotics while you're doing this and try to kill it both ways. Right. It will make the CO2 less effective.

Okay, great. And the same thing is true for antivirals, right? Like acyclovir and valacyclovir work by making it so the virus can't detach and therefore dump the the information into the cell and replicate.

Well, that would make the AZT network too. And the same thing is probably true. And herbs in some aspects to some extent. Right. I couldn't tell you the mechanism of every herbal antimicrobial, but you don't want to be taking them and discouraging replication.

Right? No, that makes sense. Well, you could do something like a Maya's cocktail that might increase cellular health and but wouldn't have a dramatic impact on cell death.

Does that make sense? Yeah. No, it does. So when it comes to viruses, you can treat any virus with this or is it really just the herpes family viruses or.

I don't have them all memorized. I thought you might ask that. So I had the list. I think now they have to make an SRT molecule, which means that the scientists have to identify a unique sequence, a gene sequence that doesn't exist in humans, but does exist in this microbe.

So that's not always possible. They've been working on an associate for parvovirus for over a year now and still haven't made one, which is discouraging to me because I have patients with parvo that, you know, that mimics Lyme quite a bit and I can't treat it with that.

So to you and I don't have another better treatment, but here are the Estes for viruses that exist herpes type one. Herpes type two herpes type six cytomegalovirus coxsackievirus varicella zoster Epstein-Barr human papilloma virus 16 and 18 human papillomavirus six and eight.

Hepatitis B, hepatitis C, HIV and human T Cell in four Trophic virus. So there's a lot of choices. The menu is long, but it's not 100%. Yeah, and if you're going to treat viruses.

So I would imagine like with HCV too, like you would be better off if you could time it, like giving the treatment when the person has an outbreak or if or if it's Epstein-Barr, if they have an early antigen that's coming back positive.

Right. Like something's showing you that it's. That's exactly true. Here's one thing and this might be controversial to the scientists listening, because I have no proof for this.

It's just an anecdote. I've been shocked by a few patients that have treated their Lyme, I've treated their co-infections, I've treated Epstein-Barr. They're better. But they're not all the way well.

And they'll have this lingering fatigue and headache. Now their joint pain is gone and they're, you know, but but they and the only thing they have left is herpes type one.

And I've, I've done this more than a handful of times, probably five or six times. I treat the herpes type one. And I saw this just the other day with herpes type six.

It didn't surprise me as much, but oh my heavens, they have the worst hoax that they've had of any of their assets and then their symptoms finally improve.

It has shocked me to see clinically that it appears that herpes type one does not just cause oral herpes viruses. I, I now believe with no proof besides this.

So don't beat me up over this that the herpes type one I think also can create central nervous system inflammation and be part of their fatigue and their headaches and their cognitive dysfunction.

So I've just seen it enough times clinically that it means something to me. So, yeah, I mean, you know, judging from what all of the other herpes family viruses can cause systemically.

Yeah. I mean, not that surprising. I don't think it's that far tried. Okay. Herpes type one, two and three are peripheral, right? Like oral genital shingles and then herpes type four, five, six, seven.

Those are central. That's just what I sort of thought. But I was wrong. I still think that generally it's true, but I think that there are there's more to it.

So yeah, I will tell you, you didn't ask this, but I will tell you that for the tick-borne infections they have searches for and a plasma rickettsia look.

Yeah, let's see, six kinds of bbca, six kinds of bartonella and 19 kinds of Borrelia. So not everything is on the list. Let's see. I can't think of a common one that's not on the list.

I don't think I've ever treated Borrelia. Finland insists because of hybrids, America doesn't test for it, so I've never found it. But I've treated a lot of things I didn't know they would have had if all I had done was a Western blot.

How would I have? But they had really a big CTA or Borrelia. California was. Right. Great. So anything else that you want the listeners to know about what you do or about us?

So T before we end our interview. I mean, I would say this to every listener, your disease is more complicated than just the one bacteria that you first were identified as having.

And integrative holistic care is what will get you all the way better. And so SRT might be a great step for your recovery, but it won't be the whole thing.

## Why SOT Can Be Better Than Long-Term Antibiotics

And that I can't say that with enough certainty. Like I want to reassure you as a patient that this is a process. Your immune system is what matters the most, not the bug that they found.

Killing the bug that they found will make a difference, I promise. But the immune system will make the long term difference. So don't miss the forest for the tree.

The one true you identified, I think, SOT is great. I don't think it's the only treatment out there that's effective and I don't use it exclusively. In fact, most of my patients, I go through the entire menu of herbs, antibiotics, oxidative therapies, UV light, oligonucleotide therapies.

All of these things will kill microbes. And we do want to kill some microbes, but we also want to help your immune system. And whether that's naltrexone, it's got to include gut health, low dose immunotherapy.

They're all steps that matter. I guess one parting thought that I would give because I don't think it gets enough

attention is the autonomic nervous system.

A third of my patients don't get better because they have autonomic dysfunction. Right. And if their trauma might be that they were sick for 20 years, fine.

Let's address that. If their trauma was there was a molested as a kid, fine. Let's address that. But we don't give enough attention that part of our health, because we want to separate our emotional health from our physical health.

And that's a huge mistake. So if that's what's happening in your care, own your care and take care of your emotional health. You can't I don't think you can take care of your emotional health on your own any more than you take care of your Lyme disease on your own.

But don't let that go neglected. So yeah, I agree. It's it's such an important point that, you know, our heads are connected to our body, right. And like our brain, if it's giving you a headache.

Right. Like, I mean, everything's important, your cognition, your emotions, and, you know, especially with these infections, like, of course, we didn't talk about we've talked about in other interviews, but it's like, you know, these infections all cause massive emotional behavioral issues.

I mean, some. Yes. Just from the sheer fact that you have been sick for 20 years and fighting, you know, for your life and your body and whatnot. But also, you know, a lot of these infections, they really just like your brain's on fire. Right.

And so you you're dealing with the chronic illness piece that's depressing and anxiety causing, but you're also dealing with like depression and anxiety because it's messing with the different centers of your brain and your ability to make neurotransmitters and all of these other things.

And, you know, it's just it's so important to deal with that, but also to balance the autonomic nervous system and get out of this chronic fight flight or freeze.

Right. So that our immune is again, it all goes, like you said, back to the immune system, because your immune system can't function properly if you are in sympathetic overdrive.

Yeah. I would say as big a breakthrough as Disulfiram was for me or SOT was for me and my patients. Ketamine assisted psychotherapy is right up there, right?

stellate ganglion blocks right up there. So the autonomic nervous system, if it thinks you're dying, it can't let you get well. It has to help you escape. Right.

So anyway, I appreciate that you that you also see the significance of that. And and I do think as physicians, primarily, we we don't give that enough attention.

It seems like too soft of science. And so we're uncomfortable talking about it because we can't it's harder to cite a study.

## Autonomic Nervous System, Emotional Health, and Finding Care

And since we don't want to be the one, you know, voice in the wilderness saying something a little weird, no one says it at all. And therefore it's not it's not conventional enough because no doctors are saying and it's just a therapist. Right.

Or it's a health coach. Well, the health coaches and therapists are right. So let's listen to them. Yeah. Yeah. It's like it's the huge elephant in the room.

Yeah. So thank you so much, Dr. Petersen. This has been a really great experience for me and I'm sure for our listeners to tell our listeners how they can find you if they would like to become a patient.

Oh, that's a great question. I would say go to forumhealth.com forumhealth.com has all of our offices. I have one of those offices where I travel to West Jordan, Utah and Orem, Utah, but I'm not the only forum health doctor that does anxiety therapy.

And so if you just go to forumhealth.com you can find the closest office to where you're at. And like I say, we have offices in 35 different locations.

We do work across locations too. Like if you if I'm not licensed in the state where you live, well, you could see one of the doctors that is licensed in the state where you live.

And I could still then be referred to and you could come out and do treatment with me. So forumhealth.com Great, wonderful. Thank you so much. And thank you to of our listeners for being here with us.

I hope that this information was helpful and helps you on your journey to healing Lyme. And we'll see you next time. Bye.