# Dr. Kathleen O'Neil-Smith, MD, FAARM - The Ultimate Peptide Overview to Help Master Your Health Transcript

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## Introduction and Speaker Background

Hello, this is Doctor Kent Holter with another episode of the Peptide Summit. Today we'll be interviewing Doctor Kathleen O'Neill. Smith. Who is really, renowned, lecturer, researcher, clinician, in the peptide world and actually many other things.

She can pretty much talk about any subject, peptide. So it's so wonderful to have her, the title lover. This talk is everything you need to know about peptides in 45 minutes.

And if anyone can do it, she can do it. So a little bit about, doctor O'Neill. Smith. She's basically, magna cum laude, a graduate from Boston University School of Medicine.

She completed, post-grad training in pathology at Harvard, Harvard, mass. General, and internal medicine at Brigham Young and Women's Hospital in Boston.

Not too shabby. She has a degree in exercise physiology, has been an athlete on the national rowing team for 40 years and a coach for six years. Pretty incredible.

She has worked as an, office and hospital based internist in 2006 and then shifted to functional medicine, functional medicine after completing a two year fellowship and A4M, she completed a stem cell certification through a forum and a traumatic brain injury certification through A and MG.

She's been teaching and senior lectures here at so many conferences. Yeah, many regenerative conferences, many topics, ranging from gut brain pain and what we're going to kind of go through all those with her with very few people that we can do that with.

So we're going to take advantage of her, as well as well as peak performance. And I know she was just down at the Hall of Fame football camp and, so she's, you know, treating a lot of elite athletes as well.

She's founder of the international Peptide Society, Clinical Peptide Society, and the American Academy of Stem Cell Physicians. She has extensive personal use with I. V.

nutritional therapy, medicinal signaling therapies, which is really, I think, an upcoming, deal where it's really looking at why you get sick instead of, okay, here's, here's this drug to treat the symptom.

And that includes hormones, peptides, stem cells, exosomes, all those things. And she's constantly learning. She's always on the forefront and lecturing.

And she's so generous with sharing her knowledge. Other physicians and the public and her son had severe traumatic brain injury, and the prognosis was slim. And that he would return to normal and but with her, he recently graduated with back degree, two years after having the severe traumatic brain injury.

And I, I've had my own or his with the er or trying to get or ICU. I, they just don't know the studies and won't do anything and maybe you know, because they can't because it's not part of their protocol.

But I can imagine it is very frustrating and there's so many things you can do and in to become very limited. She has direct access practice and functional and, and integrative and regenerative internal medicine.

And I know it's probably hard to say what she does. She treats the things that no one else can, I think is a good

way to put it. She's been in Boston over ten years.

She's an international thought leader in the use of peptides. And in many areas, she is an innovative, compassionate doctor. Proud to say she's a she's a friend.

We bounce things off each other all the time. Her teaching style is approachable, friendly and creative. She makes complex ideas. Simple. Which is a testament to her career as a high school and college science teacher.

I did not know that I was going to medical school. And that's you can do that and make things simple. But when you really know the topic, you know, if you don't know the topic, that's hard to do.

So thank you so much for for being on the summit. Looking forward to our talk. And we'll just kind of go through, different areas in and get your thoughts and, I'm sure, we'll get so much out of it and pearls and how you would approach things.

So let's just say someone has, a lot of pain, you know, whether diffuse or localized. What, what what's your thought? And also what what type of peptides would you use to to help those those people to treat pain?

Well, it's good to be here. You are a thought leader. Thank you for your kind words and generous words and a good friend. So I appreciate you and you educating everybody.

Can't your you're wonderful. Okay, The pain pain, pain is pretty common, right?

## Treating Pain with Peptides and Fascia

So I really have delved in to pain through looking at fascia and the signaling molecules that medicinal signaling therapy and peptides are fantastic for that.

So it depends on the kind of pain. But let's say yesterday I had a man who is a lawyer but works in the steel industry, and he's probably 60. And so he's always on his knees and he's building and he's doing steel kind of stuff.

I don't really know what that is, but it's construction. I think. He's a great guy and he likes to be active. He likes to cycle, he likes to run. He's very physically active and he's pretty strong, pretty healthy now.

So he's come to see me quite a bit with some knee pain. And once he started to come to see me, that just built the relationship. And it comes always for his pain and prophylactically now.

But he had some significant knee pain and came in and we used a number of peptides. But I think the main peptide we used with him was the growth hormone derivative.

And that works for cartilage and bone repair. So we basically did a series of aid with hyaluronic in with with the lubricant. That we would use like synthesis.

But it's hyaluronic with the aid. So you get a double. So you're injecting into the joint and into the joint for this one, I also do IV a little bit with him, so I would do, and yesterday I did an injection in the joint.

He had had a series before in the other leg. Now this leg was bothering him. I think he'll just get one there. And then I gave him a little push of ten cc's of, peptide BPC with some, PRP and just a little bit of saline through the I. V.

push to kind of flush it through on the same side, which was his right side yesterday, but he. So how does I tell everyone about you? Tell them all. I mean, they just can't believe it.

You know, I can walk again. I can ride my bike again. I can hike again. He's really. He's really happy. So that's that's localized pain. Interesting. And just you inject.

So just going back to the BPC is going to lower that inflammation kind of overall Aoda, being a, growth hormone fragment has, you know, the it's going to induce healing.

You inject also BPC or Tb4, into the join as well. Yes, but depends on the joint. If the joint is really inflamed, then I might use a little bit of tb4 as well.

If the joint is not so inflamed, but chronically degenerative, I might use BPC with the body with HRA. And so he came in pretty much spontaneously with, you know, pretty quickly.

So you don't always have what you need. So you use when you have. But yesterday I had a OD and I could have put BPC in the joint, but I had enough liquid to put somebody with some PRP.

I could have you feminisms. It's all about the cost for for everybody. So he's injured each PRP joint BPC little push through the IV with a little PRP in the BPC.

Yeah. And right now we're it's a tough time with peptides trying to get them. But for when this airs that will be resolved. Now I'm fascinated with your work on fascia.

And when I, was going to one of your lecture, I'm looking like I show. What the heck? How did you find this out and how did you discover this? And then I started fiddling with other things.

So I was wondering how, like, so amazing. The reason I'm a physiologist and a coach. And so I've worked, for a little while. Like you describe what fashion is.

Yeah. So for the last two years, I'll explain to you. I worked at, tb12, which is Tom Brady's place in Boston. Do it as a medical director. And they do some amazing work.

And the reason I wanted to work with them is because I love what their body workers do. You could call them physical therapists, athletic trainers, whatever, but they are very skilled at understanding how to take the soft tissue where you have soft tissue pain, whether it's from an injury, whether it's from fibromyalgia, regardless of what is the cause of the soft tissue pain, you could have, you know, people get dry and they they age and they lose the lubricant that helps their their tissue to flow.

And I think of it like little things of spaghetti, all in that little spaghetti thing. And they're the hard uncooked spaghetti and they go up and down, but they need lubricant and they need to be able to flow.

And between each of those little pieces of pasta, I have something here. Maybe I can show you here. But between each of these pieces, you see. Jesus. No, teacher.

Yeah, exactly. These. Exactly. These are. Then you need to signal. So between each pencil, it needs to be signaling. So they move that tissue. And we, you and I, as clinicians, physicians would add what they need to put to move that tissue better.

So each muscle fiber needs to go up and down. So all of that interrelated tissue in and out of each of these pencils and around it is fascia. And it all signals.

If this is the back, like the vertebra, and it goes around to the front, to your abdomen, the pain in the vertebra can induce pain in the abdomen. The pain in the abdomen can induce because it all the fascia connects it.

So I learned how they move that. And then they allowed me to help them put things in to the body, whether it's through peptides or through I. V. nutrition, nutrients or other ways to help it all heal and work better.

It's wonderful. So. So the fashion is basically lining all the muscle that's under the skin. Everyone here line lines everywhere. Yeah. It's like in and out, in and out, like origami.

And so it's in your cheeks. It's on top of your lid is it was really interesting. And we had, a stem cell guy come out and he basically I, one of our doctors had a frozen shoulder, which I didn't even know.

And, you know, usually. Okay, let's go into the joint. Let's go in and go deep. And he just went pretty superficial into the fascia around it. And he guarantees that they don't walk out to be better.

He'll refund their money. Right. My kind of work. I mean, you got to go deep. You got to go, you know, and the doctor goes, he, you know, and I'm like, oh, my God, you know, that guy uses signaling molecules so it signals everything in the middle, everything in this space, including the pencils, which would be tissue.

What he put in superficially starts the signaling. And so, you know, we think of bash as just kind of connective tissue that does not just so you divide to push through, you know, no, it's, it's so it's so bioactive.

It's active, it's full of all these biological processes. And even when you touch it, it's very responsive to touch and certain each fascia like certain kind of touch.

But when you touch it you press it, you move it. And then you put the nutrients into it, whether it's through a little superficial needle or, you know, IV or orally, it loves it and it moves you.

You know, cupping does that as it kind of pulls up on the fascia. My girlfriend was doing that, like kind of crazy. But she's like, it's helping, you know, and so, you know, there is it's it's amazing.

All these alternative therapies when you look have a good physiologic basis. Yeah, they really do. If you think of thymus and beta for like for poly myalgia.

Rheumatic. Oh. And so and their hips are bothering they can't stand up you know. So it's kind of in their shoulders and bothering them. And you give them a little peptide just a tiny bit of peptide like thymus and beta for one of your favorites.

And you put it in, they can move. It's unbelievable. So you can give them a little dose in the, in this soft tissue like a tiny little needle. But it makes sense because when we put when children have insulin dependent diabetes and we give them insulin in their abdomen gets to their brain, it gets to their toes, it goes from the toes to the nose to the brain.

It goes everywhere from one little injection, even just under the arm or where you put it. It's the same with peptides. They are amazing, amazing. It's amazing that some of the doses, I mean, and you know, and and you know, nanograms, you know, usually, you know, drugs are milligram supplements are milligrams.

And then there's micrograms thousand less and they even work a thousand less than that. So it's like nothing, you know, tiny amounts. Yeah. Yeah. Like a it's like a domino effect.

So once you affect one cell it goes to the next to the next to the next. And they just keep all communicating. So it makes them function as a whole, as a system, as a team.

So just like you know, if if you think of a quarterbacks on arm, Tom Brady or any of the quarterbacks and you think, oh, every layer of muscle in between each little layer is fascia.

So when when you're treating a quarterback, if they can't move, you know, is it a quarterback camp and constantly yeah yeah I was out there is at a quarterback camp.

And this is interesting. The quarterback coach we we said what if the what if the athlete can't make the movement that you think they need to make to get, you know, to get the ball in the air where it needs to go?

He said, well, I just changed their position. I said, well, you don't have to change their position. You can put in signaling molecules to get this fascia to be not inflamed and to glide and to glide in every which direction so that

quarterback can throw that ball.

Hail Mary, because I know it's just a little side note that a bunch of doctors were kind of, fighting, trying to be in that position, and they've bypassed them and called you know, when you can do that, it's really it's really like, oh, I, I love that.

And I just say, headache. What what do you think of when someone comes in complaining? A headaches, headaches are interesting. You have to kind of think like what is the cause of the headache.

So if you think you know that it's a blood pressure issue or something in the inflammation, the blood pressure, you know, again, if it's real inflammation, you're going to have to go to, you know, something that's anti-inflammatory.

So understanding the cause of that will be key. But you could try a thymus and beta four. You could try a cerebral Lyson is one of my favorites. A little harder harder to get right now.

But that will be coming out. Just so you know, in a couple weeks with, oral surgery, you used to be one, and it was great. Yeah. So each capsule is about two and a half cc's worth.

Oh. That's amazing. Yeah. So we'll have that because, yeah, tribulation is, like, impossible. I finally got some injectable. I can't sell the patients because it's from Russia.

But it took three months. I forgot I ordered it and it showed up. Yeah. But yeah, tribulation is basically, neuro signaling molecules, you know, porcelain.

And they kind of don't tell you the formula. It's secret. And everything. Some amazing studies on neurodegenerative diseases and, you know, kind of a significant improvement in Alzheimer's, like, pretty quickly as well, you know, traumatic brain injury.

Yeah. Think about what it does Cerebro brain likes. It breaks up things in the brain that don't belong there. So my son had his brain injury, thank goodness for peptides because he got the thymus and the cerebral lyson.

He got them all. And we just yeah let's talk about that. So traumatic brain injury and it's such a a problem. And I think it's such a bigger problem than people think because you don't have to be a professional athlete.

Although that's where the focus is. And the football. But you know, people you know who don't even like skateboarding, you know, soccer, you know, and then the longer you do it and it doesn't have to be like or automobile accident, like one big one, I just repetitive, you know, basic concussion that you think nothing of.

And they pay the price.

## Headaches and Traumatic Brain Injury

You know, a lot of these football players I saw, I study and you'll probably their the presentation at the stem cell, conference where they did Spect scans.

You can tell the position of the player by where the brain damage was. It's it's it's crazy. So what did you do for your son? To get this recovery. Where were the doctors would say sorry, you know.

Oh, he had so much bleeding in his brain, like, all over. Oh, wow. You he was he was, it was a violent. He was in the wrong place at the wrong time and violently was attacked and, fractured with the crowbar.

And then he bled a lot. Yeah. So he. You had stabilized. And then after that, he was home for quite some time from college, and we basically just treated him with peptides around the clock and then a little bit of and the asylums and things like that, those other, the other signaling molecules as well.

But mostly it was the peptides for a good, 9 to 12 months, you know, just kind of cycling. So we use the thymus and we use the BPC, we use some CJC, we use some cerebral lyson, and it was more okay.

And if you just kind of explain those. Yeah. So for the inflammation, the primary inflammation I use the thymus and beta for. And so I wanted to kind of reduce inflammation for the nervous system.

Axonal the axons and the nerves regeneration I use thymus and alpha one. So I try to get inflammation down then build neuron axons neuronal axons and and then when you're getting the inflammation down, you want the glucose utilization in a dirty brain, so to speak, a bloody brain to be used.

Well. So you use a rereleasing. So you got a little bit miss and beta for cerebral lyson followed by some, that was an alpha one. So those are the three.

And then for at night prior to bed, 8 p.m. 9 p.m., we would do a little bit of the CJC, which basically is the growth hormone derivative, with EBA. And so that would kind of help to heal the whole body because he was really I mean, he really suffered.

So and then I love BPC, I think it's one of the most amazing for neurodegeneration, for all healing for any actin myosin filament within a cell membrane.

So the cell membranes break down. And that's how we're the how the blood gets into little tissue. So the BPC will help restore the cell membrane. So I use the thymus and both of them the BPC, the CJC, EBA, cerebral Lyson.

I think he had one dose of like a stem cell like product. But Emax or C link or I use C max and C links. Subsequently when he, he maybe 3 or 4 months out, he had some anxiety, you know, just random palpitations, anxiety for no good reason and that we use some C max.

And so like for a we would alternate them in C. And and those are both you know tropics improve brain function. But especially C link. It does so many other things.

I mean modulation really helps deal with stress. You know, lowers all, all those things, coupling. So endosomes versus exosomes versus stem cells. Oh, what's your thought?

Well, I think stem cells, you know, they are cells. Like, what if you did a bone marrow transplant. That's the idea that you can you can harvest stem cells by doing fat liposuction etc..

So that's one way of doing it. It's a little cumbersome because you have to, you know, go through the process with all of the machinery. And then exosomes are these little vesicles that basically go from cell to cell to cell and pop into the cell.

And they carry information. They can carry good information, they can carry bad information. But the exosomes that we use that you and I have used basically are designed to deliver the good information to restore the cell to function, to regenerate the cell back to normal function.

And exosomes in many homes are very similar. And the assumes are and the from amniotic product. Exosomes are not always specified that they're from amniotic product.

They may be amniotic fluid, they may be from placenta. They may be from another component of the fetus. You know, the healthy fetus at birth, but they're pretty similar.

You can look at each of those the amnio. So the exosome and the stem cell. And you can characterize them depending on where you got them. And you can see what benefits they may potentially confer in the patient that you're trying to heal.

So you really kind of want to know what is your goal. And it may be that you just need a little bit of amnio. So it may

be that you need something very specific from an exosome perspective, but you talk to the to the to the scientists, the PhD doctors who are researching this and are fully they're brilliant.

And they will help you to figure out what factors is what growth factors and what are the what are the, the markers of each of your cells that you would want to use?

And that's what you want because, you know, people think that the stem cells go to that area, they start growing and regenerate, which they don't. I mean, these studies show you separate, for instance, with, post demise study, they blocked the stem cells from getting to the heart, and it recovered just as well as, you know, giving them.

So yeah, it's those signaling molecules that are generally secreted in the packets. How do you deliver those? Do you do any nasal, you need the nasal or.

Great. I mean, especially if you were thinking like these, motor vehicle accident with a brain injury or even my son at the time that we weren't doing or we weren't doing that.

This was years ago. So I think that, I think that's a great delivery mechanism right through the form plate. Right. And, you know, here it's like a little Chex cereal thing with holes.

And if you inhale out appropriately, it goes right to rectly to the brain. Are you using it's a sprayer or a spinnaker to get up in there or you know, you can do whatever.

Yeah, you can do either. I've done this. You know, Kath, I don't do many of them. I use the sprayer and I, I, I tend to like things a little bit more continuously over time than a one.

And done. I don't really believe a one and done is a solution. It's not like you can go to physical therapy one time and you're done. Oh that's true. Yeah.

So I like some can system pattern of delivery because I think that that's going to give us a steady state pattern and it's going to allow for better healing.

So I prefer an intranasal spray. And lots of other docs do that as well with great results. Yeah. And we found like the autistic kids, it's it seems to work great.

And then the problem with doing, like, a cast, I mean, it's going up in there. It's it's uncomfortable if you go up. But I did it because stem cells, you don't really want to use, anesthetic.

So they film. They didn't do any anesthetic. And then the doctor office and. Oh, man, I was. Doesn't hurt, but it's just so uncomfortable, you know? But you can numb an upper.

But I don't think it's needed to get right. You know, I think it gets up in there, you know, if you get, like a nasal spray that kind of shoots, shoots. Absolutely.

I try to do the easiest thing possible. And I've had really good results with, you know, nasal sprays and things like that. The patients have had good results.

So if you if I didn't get a result, I would consider another way. I, I treat a lot of wounded warriors too. Oh I love that. Oh no brain injuries. And they're so they're really great people.

They're so motivated to get well. And because they're just hard to you know, it's it's strange. I've met a number of that that, you know, and this guy was telling me he goes, the VA, no one can figure out his symptoms.

You know, what's the sense of like, oh, I'm like, let me guess that he's like, no way, you know? And I start talking and I start crying and he's crying and I'm like, I'll treat you for free.

Just come in. And they don't. I don't understand it really well. Yeah. It's, Oh, I've seen an interesting story. They're so good. I should send some to you that are on the West Coast because they're really motivated, and I think they may go back to a doctor or whatever.

Oh, there's nothing you can do. That's, you know, they talk to their friends or someone, you know, that goes. Or they have to do. Yeah. They really want to know.

I have a group of Marines and Navy Seals that I've seen, and they talk to each other, and then they they come and they're willing to try a lot of things, and they do.

Well, they're great. I love these young guys. They're like 30 and under, you know, and they're they need help. And it's incredible life change. And it's kind of the same with all the other diseases.

We treat a chronic Lyme syndrome like a big part of it. Don't believe them. You know. Well no one is willing to do. It's costly. But if you give them something, they're going to do it.

They're really great. Yeah, yeah, they they want to get better, but then they start and they go, doctor, doctor, doctor. Their friends go, oh. Just, you know, be, eat this exercise or you just lazy.

Then they start believing it, you know, and they know I time one guy in particular actually heard from him recently. He just moved down to Alabama. He just graduated college.

He's like 30. He was a marine and he came in. He had seen a lot of doctors, including at Yale, because he was in Connecticut. And he was he was really suicidal.

It's very sad. And he was not really hopeful when he came in, but we tried it. You tried a couple things, and he came regularly for some IVs and all, all kinds of peptides and all kinds of, inhaled things.

He did great. He graduated sleep and just got a job in Alabama, a great job. He showed me the house he bought. I couldn't believe it.

## Exosomes, Stem Cells, and Delivery Methods

He invited me to the Marine Corps ball. It was hysterical. So I went to this Marine Corps ball where he got an honorary. And he was so happy because at that ball other young Marines who were there who were feeling really down and depressed, and he said, well, you know, he feels like he saved their life and he feels like being able to it would never have made it there.

And he really felt like he was, well, we had people cry the first visit, just like you. Believe me. We're like, yes, and I'll show you on paper all that here.

You know, you're not normally. Or what if you don't find anything? I'm like, that hasn't happened, you know. Yeah. It's never happened, right? Yeah. You just gotta dig deep, you know, they do a chem panel at, you know, cholesterol.

They got all of your cholesterol high or something, you know, like, oh, you're fine. You know, it's crazy. You know, I just feel terrible because they really are great guys.

You know, they. That's been fun treating the brain. The brain injuries for those. Yeah. Yeah. And then how about like, the neurodegenerative. Yeah. Like M. S.

and Parkinson's and I think, you know, there are it's funny because we're here and we're doing this cutting edge work. And I connected with a doctor in Germany who runs the Frontiers in Neurology.

Journal. Oh, I see he's a young guy, very smart and very proactive. And Germany's proactive. We know that. So

he's working on peptides for Parkinson's.

Maybe leucine, lysine, some of those things, but just combinations. He has his own proprietary combinations with amazing results. And bringing it to market in a whole new delivery system.

And also, having it studied with an IRB but with something different than a debunked a double blind, randomized, placebo controlled trial. He's doing it.

We give different amounts to different people in different groups, and we follow their progress. So they really medicine is changing and this is all going to be utilized now.

It's it's a feel of that. You know, it has to change and and the promise like there's so many great things and but trying to get something published that isn't standard dogma is they just won't accept it.

You can't get into a good, you know, journal oftentimes. And oh, that's the alternative. That's not what we do. You know, even if it's like great data and, you know, so yeah, I think it's really just about if there's a little challenge and conflict between the pharmaceuticals and.

Yeah, because who's, who's funding the Journal, you know, it's like the you look at this five page ads of pharmaceuticals each, you know, every five pages.

Now you don't see the journal cover. It's wrapped with the ad, you know. And so they're not going to publish something that says, hey, you don't need this, this drug, you know, well, that's where people find you, right?

And they find doctors like us. And thank goodness, you know, that we're able to to really hear them and help them and measure the data. They really follow the data.

But symptomatically there's so much better. So for a long period of time, yeah, they'll say, oh, it's just anecdotes. Those 500 patients you have. That's anecdotal.

I know that's not there's nothing anecdotal about that. And you've been in this business for decades, right. Yeah. And it's funny and I'll argue, you know, people they'll say what society that it, says this.

Well, you look at the low levels of evidence, okay. Like, what's the highest? A double blind, placebo controlled. You got meta analysis, you got single line goes down, then you know, case studies, anecdotal.

And then under that is societal recommendations because they're shown to be 20 years behind. They don't change. They cherry pick studies to just, you know, say what they, what they want.

So but they do no harm. Get the right medicine out there. Get to the root cause. And yeah, so, so about getting to root cause, what we talk about, immune dysfunction, gut, brain, how do you what's your thoughts on that?

Would you, Yeah. The immune for what I think is, is really the at the core, because the immune system will either create inflammation, like heart disease and diabetes and stroke and even some of the results from infections.

And or it can create autoimmunity, immune confusion. Right. And that's autoimmunity. The immune system becomes confused. What's friend what's foe. The immune system is based in the gut.

So there's a lot of gut interaction around that. And then the last thing that the immune system does is cause cancer. So we really have to put the immune system on the top and understand which area, you know, is it carcinogenic to cancer related?

Is it autoimmune related? Is it inflammatory related. And then start to really put off the fires, maybe change the pH of the rust, you know, and then really just make sure that the cells don't go rogue.

So for the immune system, you know, understanding which one of those three categories you're in, you may use a thymus in because the thymus what do you do to evaluate the immune system.

Well I look at a lot of immunoglobulins right. So the IgG is a GS. And both mucosal immunoglobulin the ones that are secreted in the mouth the ones from the gut.

And then the serum immunoglobulins. So we can look at those in the blood and in, in the saliva. And then you can look at them in the stool and you can look at natural killer cell function.

And you can look at complement and all of these other, obviously ESR and TRP. But I don't think those are all that helpful. Mylo peroxidase I find very helpful.

I find looking at the differential on the complete blood count really helpful. Are there monocytes? Are there immature granulocytes? You know what is going on.

And looking at that with a Milo proxies. If the Milo Milo peroxidase is activated and elevated and you've got a differential that's suggested that there's something chronic going on, then you got it.

You know that your immune system is likely inflamed, and there's likely going to be some immune dysregulation for autoimmunity. So you've got to get curious.

Or cancer a stool test will help you. I mean, it will show you a lot of things. If you look at the immunology of the stool, like the is eosinophilic protein X, the cow protecting the secretary IGA.

And then when you look at the metabolomics, the metabolism of the microbiome, home of the microbiota, the bugs in the gut, you're going to also see what's being produced.

Are there, kind of like rancid chemicals being produced. Are they recirculating through the body? That's going to be your long chain fatty acids and your beta blocker on it is that will be elevated.

And then you'll have short chain fatty acids that are low, which are your resistant starches that are there to feed the good guys. So you can get a lot of information from stool from general blood counts and natural killer cell count, a CD, 50, a CD.

CD4, CD 57 count. Really important. Just basics. I mean, those are real basics. Yeah, but you're looking at everything different. Yeah. Oh, yeah. Normal, you know, and look to paint a picture.

## Immune Dysfunction, Gut Health, and Autoimmunity

Yeah. I had a patient from Bermuda yesterday, relatively young woman, 50s and 50s, and she has a her doctor was actually one of my students a long time ago in science.

And so she, she came to me on her own, but she had so many autoimmune markers that were off. So she has a mixed connective tissue disorder with mild symptoms right now.

So that, you know, mixed connective tissue disorder is when you go to a rheumatologist, they don't know what it is. So they can't mix connective tissue disorder.

And and like her rheumatoid factor for rheumatoid arthritis all those numbers are off. Well yeah exactly. That's the soft tissue. So coming back to fascia that we her fash is what is bothering her.

So we have to treat that. So we need to absolutely understand that heal any leaky spaces whether it's in her mouth, whether it's in her gut. Make sure she doesn't have you know, rheumatoid arthritis is associated with bugs because the immune system didn't keep them out.

The chronic infections, I think are just. Yeah. So it's like in the mouth, right? The bladder, the gut. And then also, it can also be related to, low secretary IGA, but often hypochondria, low stomach acid.

Yeah. Yeah. And I think everything's a vicious cycle. You know, you look at the gut brain axis is also the brain gut axis, you know, and I argued and she lcbo everything where she was able to see because but then say well I think it's kind of also a symptom of things like, oh you know, we're like on like a podcast interview.

And that guy got so mad at me because, you know, just because everything I said, I don't know. Well, what's making the problem? Because you treat it and it comes back okay, there's something wrong.

Right. And Doctor Bar is going to be on and talk more about that where he's he's finding now, you know, all these gut presentations are due to systemic problems where the regular gastroenterologist will just go, okay, let's stop you.

Of ever left. Fine. You know, and they just don't look at the structural things. They only looked at this. But there's something functionally that caused that structure to change.

And doctors are so, you know, open minded and curious and and learning. And he's just an amazing guy, doc. But yeah. And he has I've been told him the sexiest voice.

So, he does. He does. Yes. He's a lovely, lovely woman being. Yeah, that would be a great a great a great webinar. I'm excited to listen to that. Yeah. Yeah. So you've got to fix the gut.

I mean with the gut you've got to use and PPC always because PPC, you know, I mean you're an expert and PPC as well. That PPC is so healing for the gut.

And you can cut the gut. You can cut the colon, right. And just leave it there dead for three days. And then you can bathe it in BPC or saline without any BPC.

And the BPC grows back. I mean, is there anything on that? Or like spinal cords that are separated, you know, goes back and, and then we, you know, we have the TB for, active frag, which, which absorbs and has the effects of tb4 and shown to fix the tight junctions, which are key.

We will use any Mylanta courtroom, stuff for inflammation, for the brain and for the, for the MSH. I think that's good. And like Lyme and other, real chronic infections.

Right? Do you use that for long? So no. Because, yeah, the problem is you do like Milana Tan. And you do it. I mean, you have the pigmentation increase, which you will.

That's great. If you're older, it brings out the dark spots and and that. But there's a fragment called K-P-D, which is actually much more anti-inflammatory.

It basically suppresses stems. Stems of, mast cells much more significantly. And so we'll be coming out with that product, alone and also adding it to, the BPC product.

And there's a lot of melanin receptors in the gut. So the huge anti-inflammatory, lots of studies on like psoriasis, like one day it's gone, you know.

Oh, bravo. Yeah, yeah. And my girlfriend, developed, mast cell activation syndrome, like, just, you know, basically take something like a pencil eraser, scratch, and then it just went up and boom, it's gone.

That is amazing. Well, Nestle activations and symptoms are growing rapidly. I mean, I think it's from all the exposures and and our bodies just being overwhelmed.

I think that it's that I love the idea that KP, KP with BPC without it that's owned housing. Bravo. Thank you for doing

that. Yeah. I'd say two weeks, but so stay with, you know, within the month.

You're such a renegade. That's my best friend in medicine. We're always trying. And, Yeah, like, no side effects type thing, you know? So it's, amazing.

It would be great. And that's the thing. I think it's tough because everything's so intertwined, right? Everything's a vicious cycle in a good way or a bad way.

And, even the hard thing to do is to know where to start, right? So where are we going to start with these peptides? I say start somewhere. Just start anywhere.

And then you can always change. You adapt. It's like starting a football game. Game. You can't do that. And I know you have, a training class that is, very highly regarded.

And I think doctors are freaked out because there's so many options and they, you know, like, I think you said, you know, where do you start? Like, just start.

I mean, you're it's so hard. Just screw it up, you know, because they're so safe and whatever you have probably going to help. And what would you say the core peptides are for you?

So I could start BPC for sure off. I mean, injectable or oral after charge. The citizens for sure in CJC for sure. I mean, CJC works on the immune system too.

That's why I used it in my son. It works is insulin. You know, blood sugar, insulin, immune system. You add it to like a pump or Allen or. Yeah, always.

Yeah. It's so amazing because you've got the ghrelin with the EPA Moreland, which works on healing the stomach. And we just so everyone knows, their, what they'll secrete televised secrete growth hormone.

But as Doctor Neil saying that does a lot of other things and oh I want to ask you it with the, with the traumatic brain injury. I mean, you know, there's studies showing that, you know, why not give these guys, you know, profile tactically before they play a little game day before, like whatever BPC like it just seems like.

Yeah. Makes sense because that ounce of prevention is a lot easier than all the sure, you need to try to do it really makes sense. And I think, you know, we'll be there.

The problem is the this this circuits you have to jump through the hoops, you have to jump through, but it's worth jumping through them because they benefit people without any harm.

Yeah. Yeah. And that's a and so say and let's just say for performance because you work with all these athletes and what types of things do you like to do to get someone in their peak?

Because the difference is professional athletes, you know, it's so competitive here. Just a tiny bit difference. They're they're going to make it or, or, you know, be gone.

It's a multifactorial program when you when you take that on like, and I think of it, you know, kind of foundational and building up. But I but for peptides, you know, I had, an older gentleman, not old but older in his late 50s, who hadn't really trained and was going to run a marathon the year before.

He was going to run that marathon. But he got there. He had horrible back pain. He didn't end up running. So this year he comes in the marathon was like in October or something, and he comes in and we came in in late August and he said, I'm running this marathon.

Do not talk me out of it. I'm, I'm running the marathon. So I'm here for you to create the program to be sure I get through it. And if I have no injury, it's a lot of pressure on you.

Yeah. And I'm like, well, are you going to do the program? So we did. We created it with, a lot of different peptides, and we would use a CJC and we would use the BPC for sure.

It was he in shape to start with? Marginally. Maybe he'd run a mile I don't know, I mean, that's pretty good because, I'm so passionate about exercise.

It's like a religion. Every four months I do eight minutes. So exactly like that. So whatever peptides you're using, they're working. I know, and for this man, I thought I would have I mean, I tried to talk him out because I thought it's not worth it if you get injured.

But he said I'm doing it so remarkably we did for sure, BPC for sure, CJC and then, you know, kind of juggling a few of the others around. He did. He did Tasha work through the specialist specialized fashion experts and he did his best time in fact, he ran so fast that I missed him because I went out there to mile 20 thinking he was going to be slow.

He'd already passed by. And then when I heard that he had done, he was finished. I didn't believe it. I said, you are a Rosie Ruiz. You got out, went back to get in the car.

I was yeah, I photographed him all along. So he was lucky because otherwise I wouldn't have believed it. But it was quite amazing. I was impressed that that could happen.

So if you really kind of tweak some of these things, depending on who you are, Mozzie maybe, or maybe a mitochondrial, the one you told me about. We talked about earlier this week.

I think that, you know, there's a lot of options for getting the mitochondria up and going and for, you know, healing the tissue. And and did you combine that with hormones and nutrient therapy.

What what types did I brought actually. And I, I mean he did a couple probably an idea a week of what lives and in the lives typically if I do them twice a week I'll do nutrients and then kind of detoxification thing.

So I think of get the debris to keep moving and then clean it up, get the debris to move, clean it up. So it's, you know, some group of things and Vitamin C's or whatever you were choosing to do.

Then the bees and the minerals and the zinc or whatever they need. And what what's your favorite kind of detox? Bees? Just depends on the person. But I have a lot of athletes, you know, people, guys and gals who workout regularly and they come in twice a month minimally for glutathione.

And in the glutathione, there's some B vitamins and things like that. They can get some amino acids to pump them up as well, you know, have you like personal calling?

I love I love PC yeah, I think that's the best detox. I have a PC. Yeah, I, I grabbed so much stuff like, you know, petroleum products or so heavy metals.

They I'll take that over the key and you know for sure. How do you do PC due to the cane protocol, what do you do? Yeah, I don't know. I'm not a big protocol guy, so.

And doctors love protocol, so, well, this ramp people up on it.

## Performance, Detox, and Mitochondrial Support

And, it that they get especially sick patients that have poor detox. And it's interesting where starting to use a lot of genetics and you can see the ones that, hey, no wonder you having a problem.

All your detoxification pathways suck, you know. Right. And and it's nice because instead of like giving everyone like, all these supplements and things that I can give you a thousand things are good for you.

Right. But but we can pinpoint much better, what's wrong? And a lot of times it's like, yeah, that makes sense why you're having this problem now let's give is, you know, but I'm much more directed treatment.

So so good. Yeah. Really all we want to know are you doing nad did. Yeah I like nad I mean it's just such a pain. You know, it takes so long. So, I'll do a little subcu myself, and we're cutting down the dose, so it's like a 2 or 3 hour.

But it's tough to get some sit there for eight hours, you know, so hard. But, but, yeah, ways to increase nad in the cells like some of these mitochondria five amino one and Q and and things to, to increase.

I find that kind of the oral like or sublingual and need I haven't had good luck with that and I maybe mild with some of the, you know, precursors, but they're just short lived, you know, poly MVA, this kind of palladium complex.

So it's interesting with, like, the five minute one in cuz that revs up the, it blocks a certain, pathway, which ends up increasing nad in the cell. And so we gave the people stopped working, and then we added, like peak or minus Q which is and the opposite goes in the, in the mitochondria.

And then it started working again. So it almost like used up the antioxidants. Yeah. Maybe it didn't have enough of the ingredient to keep working. It kind of did. Its job.

Okay. Give me some more of other things like CoQ10 and. Yeah. And and it's amazing, you know, with these, you know, theories of aging and mitochondrial function.

You look at all these illnesses, you know, neurodegenerative diseases, you have tons of studies and Parkinson's and Alzheimer's and mitochondrial dysfunction, chronic fatigue syndrome, fibromyalgia, I mean, muscle biopsies, their mitochondria just swollen.

They don't work. So, and you fix the mitochondria and. Yeah, and they're all of a sudden like, diabetics, the mitochondria are terrible. And, you know, they have no metabolism.

And so thyroid can help. I mean, there's yeah, so many things, you know, in terms of fixing the mitochondria, some of the exosomes actually have mitochondria DNA, which, which repair, might have.

Condra. They had one baby who basically with total heart failure. And this was a research they injected, how many billions of mitochondria and heart recovered and fine ever, ever since.

Yeah. I mean, it shows you're the general, but it's only for people who are really sick and they don't usually make it from stage four mitochondria. They don't make it to like they die by 20.

Yeah. For me it's like, okay, what about the people who are living horrible lives costing the system a lot? Why don't you give them to, you know what?

What are they doing for those who do a lot of infusions, of a lot of the different things that you're saying? I mean, not the peptides, more just the nutrient. Yeah.

Just like kind of keep keep that going. And also those kids are very prone to vaccine injury too. Oh for sure. Yeah. And so yeah, we were thinking of doing kind of a vaccine.

Basically harm mitigation program where, you know, it's kids with immune dysfunction, where their immune systems are already like this, ones too allergic to the high in the vaccines.

That's a problem as they go like this cause a bunch of inflammation, change brain chemistry. So so if we can normalize the immune system before they do the vaccines, like for, freaks out, I'm not in any vax or I'm just saying let's make them that safe and I, you know, haven't they will say you can't even question vaccines like like why not like we you know, it's like they've helped more people.

I go I agree, you know well sanitation is probably helped more, but but it's just like like antibiotics has also saved human lives. We question antibiotics all the time.

It's, you know, nothing is black and white. You look at, you know, some of the studies show that people that get like hepatitis B vaccine, like when they're born, why are they getting that?

What are they going to be? Drug users and prostitutes and showing developmental delay. But you can't say that you become a tax anti-vaxxer. You know, a lot of studies show increase autoimmunity, 30% increase in obesity.

Okay. When and which which comes back to personal choice, I think. Is that okay. Let's say we have the shot that's going to protect you from this rare but pretty serious potentially serious illness.

But your child will have a 30% higher increased risk for obesity. Would you do it? Yeah, exactly. You know, it's it's weighing this, but we don't give those choice to the parents.

It's just do it. And you're not allowed to even question anything. And again I'm not an anti-vaxxer. So I, they do a lot of great things. But how safely do we give them easily spread them out and like HPV that.

Well yeah. Yeah the HPV vaccine. Oh my gosh. It's it's we've had people devastated by it. But if I even mentioned that I become an anti-vaxxer, you know they do I think is that you get surprised.

You show up with a doctor or something and then they don't even treat with you showed up for but they show even a vaccine. I mean, that's true with Pneumococcus.

That's true with the flu. That's true with, you know, the HPV vaccine you just born, the shoving vaccines in you and we never even look to see is this patient in a, you know, a good state of health right now that they could handle one vaccine, let alone three vaccines.

Yeah. What do they get, 105 I think now. And, you know, the whole thing is Covid. Like they're just waiting for a vaccine, like, you know, it's an RNA virus and know the antibiotic and the antibodies don't stick around.

You know, we don't have an HIV vaccine for anything like ten, 20, 30, but the body will secrete IGA antibodies in the nose. So I think the nasal vaccines are the ones that are going to make it, right from the secretary.

IGA. Exactly. Yeah. Well, we have to understand. And, and they you think a lot of people are actually probably of new or have some immunity to it because of the corona, cold viruses and things like that.

So, you know, you look at the death rates going down, I don't know, by the time this airs, I might, you know, be saying, what's going on? But, I think it's they're making it much worse than it than it seems like a lot of people are getting it, but the death rate and the death rate for people, you know, generally healthy people under 70s is close to zero.

You know, pretty low. It's well under, you know, well under 1% like zero. Yeah. Which is like the flu. So but anyways, I don't want to get too political.

It's like if you mentioned anything like that, but you know, I'm seeing the same thing with Covid that people who were sick, they did fine. I had a couple of people hospitalized, but they did fine.

And they, they had antibodies, but the antibodies are going away. And so I'm just beginning to check the second round of antibodies. You can check quantitative or numbers of antibodies here as opposed to just do you have them or not.

Which is I think what quest does. And I'm kind of amazed that people will go from 30 to 5 in a several week window. I mean, yeah, and some people never secrete antibodies.

So those tests are tough. And you're looking at the PCR test, the, false positive rate is looking like 30, 40%. Because he's got specificity, specificities, 90 plus percent.

But let's say, you know, let's say it's, 90%, but that's to say the incidence is 10%, right, higher. But with that combo, like, well, 90% is 90% accurate.

But really because it's 10% prevalence, it's a 50% false positive rate. Right? Right. So it's the testing is the math guy. That's that's a little complicated math. Yeah.

That's but yeah, if people don't understand that, they just say, oh, how accurate is it?

## Prevention, Aging, and Closing Thoughts

But, okay, this has been great. It's going through all these things and how you approach or let's just say one last thing, just person who wants to stay healthy and prevent what what what do you think of what what age?

Let's say middle aged. 55. So middle aged, 55. The middle aged between 45 and 55. Yeah, I think middle age, you know, really, I if you're pretty active, you know, the weekend warrior, the weekday warrior, you're definitely going to want some VPC.

You're definitely going to want some TB for if you've got injury any type of injury, there's all those drop as as we get older you know Thymus and Alpha one intermittently depending on the season that's going to boost your good immune system and prevent cancer.

And yeah and so you know, by the time you're my age or thymus is pretty much 80% gone. So and that's when all these diseases of chronic illness of aging tell about cancer, heart disease, autoimmune disease.

Absolutely. Yeah. And and if you bring those back and just kind of talking about Covid, like with the, you know, they found people with sepsis, like their tb4 is like zero, you know, with their absence and giving TB for not only boosts immunities but prevents that overshoot.

And so it prevents that that immunity that just goes for cytokine storm. Yeah. Like no storm. And so you were saying we were talking before was that, friend of yours doing a trial?

I think I was in beta for is the people who, you know, they're in their 80s and they've been involved with the thymus and for, since the 50s, 1950s. Yeah, they have a trial going on in the DC area, with pharmacies for Covid.

Yeah. And the thing about the time since and what you were saying about the thymus gland is that we can change our will. Our chronological age is fixed, like you. 5455, but your biological age can be 50 or 40 8 or 46 if you put back the things that have been diluted, like your thymus gland, which is down here, if you put back the support for that gland, then you're going to be fine.

If you support your testosterone, that's like easy to understand. If you've lost your estrogen because you're postmenopausal, if you support the things that are gone, you are going to have a healthy life and a a better biological age.

Your biology is going to work better and you'll feel and. Yeah, and and you know, what's scary is like, you know, bombard with toxins, pesticides, plastics are very estrogenic.

We're going to be everyone's going to be a woman. But like, you know, and you look at each decade the, the range. So when they do, lab test each lab, they have to do their own reference range and take everyone and they take, you know, 95% of people are normal or the highest 2.5%, most in a percent are considered abnormal.

So each decade people are lower testosterone levels keep lowering the disaster. So now, like if it was 30 years ago for the same age, you'd be super low now.

Oh you're normal. It's like saying diabetes is normal. Cancer is normal. Heart disease is normal. It's it's crazy, you know, so optimizing those things and or they'll be in the lowest 3%.

The doctor's like oh you're the new normal. You know, it's like saying getting a d-minus oh you're fine. You know, you're going to, next year at the top of your class.

Unlikely, right? Yeah. Really, I know it's really crazy. It is a really big issue in terms of, but we can we can do a lot about these things. And I think it's exciting that people are in learn care ways that you can treat these things safely and effectively so they can be safe, they can be effective, and they can be sustainable, safe, effective.

What's better than that? Yeah, I can name a couple of them below. I got a couple in there. That's what. That's it. When we're at a conference and we're just, like, jumping without being on.

That's the after conference. Yeah. I'm joking. Well, it it's been, wonderful talking with you. You're just a wealth of knowledge and just. Yeah, you make me smile.

Like, I'm just such a good person to, And so I really appreciate being on. And, thank you so much. Thanks for having me. It's always great to work with you.

I love doing these things with you. And thanks for being a great colleague. That great same year. All right. Thank you so much. Soon.