Peptide Therapy For Neurodegenerative, Mood, Inflammatory, Traumatic, Toxic And Infection-related Brain Disorders Transcript

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Introduction to Peptide Therapy

As we all know, the brain functions in very mysterious ways, and there's some ways that it can be modified. And there's this new philosophy called peptide therapy.

And peptide therapy is a therapy that's been shown to improve a lot of neurodegenerative disorders, mood disorders, inflammation, trauma, toxic and other infection, related brain disorders.

And so I don't know much about peptides, but I know someone who does. So doctor Kent Holdsworth, he's an MD. He's the medical director of the whole medical group.

And is the founder and medical director of the nonprofit National Academy of Hypothyroidism. He's also the founder of a company called Integrative Peptides and peptides.com, and brings doctors and patients to highest quality natural biomedical peptides as supplements.

And he with very unique delivery systems. He also has a dedicated an entire portion of his life to training physicians about groundbreaking peptide therapies.

And this really comes from his own personal story that we're going to get into of, the, the, the, the suffering that he's been through in his life and other chronic conditions and how he's really broken through and discovered a different path, which puts them on a very different trajectory in the style of medical practice, that he ultimately became very well known for, that a lot of also start recently started a program to treat injured veterans, military veterans with a history of traumatic brain injury, PTSD, toxic exposures and other difficult to diagnose and treat multi-system illnesses.

And after seeing numerous doctors and specialists for years, the improvement for a lot of these veterans, a and particular very sick ones who were in Special forces and even people who are in comas who, ultimately came out of it.

And, there was some very interesting immediate successes. With specific therapies that, that's a whole dwarf is known to deliver.

Kent Holdsworthu2019s Personal Health Crisis

So the story got out and this actually resulted in a director and producer wanting to, highlight this in a documentary series that will be available ultimately in a multi-part series on Amazon, Hulu, and other major outlets.

That's a whole tour of also is an internationally renowned Noam lecture, author and innovator in cutting edge research and treatments. And he's also, on the steering committee and lecture for a for em the International Peptide Society and was the endocrinology expert for AOL.

And he has been featured on multiple news and media outlets CNBC, maybe si, CNN, Fox, Good Morning America, the Today Show, Discovery Health. He was on the Doctors and a whole lot of different, other publications, Wall Street Journal and many, many, many others.

So it's a pleasure for me to introduce Doctor Kent Waldorf on to the forum. Well, awesome. It's so amazing to talk to you and welcome to the show. I appreciate you coming on.

Hey, thanks for having me. Pleasure. Now we need to get into topics of peptide therapy, which is an area I know

very little about. But before we even get into that, let's tell your story.

I know a little bit about your story, but let's kind of dive into into your story. And how did you get to where you are today. Yeah. And I, I'm think I'm similar to a lot of people in the so-called integrative.

Like I don't think like alternative because, you know, you know, what does that mean? You know, people think and we were told always that means no evidence, you know, and, being a very evidence based, physician still am.

But, you know, you can go to medical school, you do anything alternative? Oh, it's just hocus pocus stuff. Then I got very sick. You know, I was kind of weird growing up like a half.

My body would be sweating or my left arm would stop work. And one pupil's always bigger than the other. My parents sweat like crazy. My dad had chronic fatigue syndrome before there was chronic fatigue syndrome.

So, I think our whole family was infected, but, I did did. Okay. You know, that always, always is kind of tired. I'm more tired, everyone else. But, going through medical school, that into residency just started getting exhausted and just mentally, like, I could not remember anything.

I actually managed the medical part. I can actually remember that it wasn't too bad, but I could have, dinner with someone the next day. I could not tell you who we had dinner with, you know, and it was scary.

And you went to the, the doctors at university who you really respect at that time, and. Oh, you're distressed and, you know, like, I'm not stressed. I'm just.

I can't function, you know, and just so tired, never couldn't sleep. And I had anxiety, which I never had before. Okay. Well that's normal, you know. And so like, what am I going to do?

Conversations were so exhausting to me. I'm like, I can't practice medicine. What am I going to do? So when did anesthesia. And I figured, hey there, sleep.

You can just kind of do your thing. And then I started thinking, hey, you know, I got to do something. I'm just I'm dying here. And, even they said, oh, don't go to alternative.

Snuck off to one and then, basically, and, a conference and I'm like, this is more evidence based than what they're telling us, you know, and my residency and through medical school and I'm like, wow.

And then started doing this stuff basically like hormone optimization. So straight T3, you know, it's normal, but the lowest, like 3%, my adrenals were shot and, testosterone was that of a nine year old.

Growth hormone was low, and feeling really good and had immune system was all screwed up. And I'm like, wow, this is just I'm a new person. So then I go, I hate anesthesia, which, no offense, an anesthesiologist out there, but it is so boring.

But. And then, the family practice took over, a family practice and started doing, you know, basically treating patients like myself. And then, I thought it was, I thought I was fine, and then, opened up, and moved to, to California, opened up a practice, here and, you know, kind of doing the same thing.

Then went through a stressful divorce. And then just was bedbound, just sweating. I got Aladin here, which, you know, I always thought people that were like, oh, that can't be real.

You know? It's real. I could not have a blood pressure cuff. You couldn't draw blood out of me. It was so thick. It was like motor oil, just like the phone and ring.

And I just couldn't tolerate it. So. Bedbound. And did, you know, basically three and a half years of the highest dose IV antibiotics that, you know, I wouldn't give a patient and, and, just like seven at a time.

Remember, I was in the ICU, and I know the nurses are making a nurse, change. And they're they're like this is that Aids patient that keeps turning up negative or HIV.

You know, I had no immune system. And, and then I'm like, well, you know, I gotta do something here. And then I went into heart failure. And, heart was basically just fibrous.

It wouldn't fill. And so it was just, a diastolic heart failure. And, the cardiologist said, well, maybe in ten years you can get 10% better with rigorous, you know, cardiac rehab.

I'm like, I can't live like this. I couldn't stand up. I couldn't take me two hours to go up the stairs. So basically I said either going to off myself or I'm going to go around the world to see what we are.

There's going to be someone. And so this really went to all these different practitioners and tried different treatments. And a lot of things work, did a lot of things.

It didn't work. And then when I was in, Europe, in Belgium, I did peptides. I really didn't think much of them. And then a couple of days later, like, I just walked up the stairs.

What the heck is going on? You know, and, and then I went there and then, I go back to my cardiologist is about eight months or nine months later standing up and walking.

He's like, what? You know, of course you don't even ask what I did. But he's like, oh, that's great, good to see you. You know, and the and the echo is, just about normal to, Well, yeah.

And and so it brought back all that, all that, fibrous tissue, which I now know is because of high human transferrin growth factor beta and which causes fibrosis and then, thymus and beta four, kp and balan, three peptides to it directly lower those.

Immune Dysfunction and Chronic Illness

So, you know, we, we, we know much more about, you know, and how to treat these was kind of got lucky at first, but you know, really started incorporating peptides and, it's really made our ability to get these really sick patients, whether it's, you know, the multi-system patients, the chronic fatigue syndrome, chronic Lyme, neurodegenerative disease, you know, with just, with just one baseball every year, patients, or just depression and, and they all have the same triad.

And what we're finding is that stress, especially emotional stress. Right. And, and then, also a toxin, but, you know, we all have toxins, but, you know, whether it's mold, whether it's, you know, just, phosphate, heavy metals, and then a chronic infection.

Now that kind of goes together because, like the stress and people think stress lowers your immunity, but it doesn't. It modulates it in a bad way. And let me kind of go back to just what the immune system does with aging.

So think of one side as a, you know, it's everything's in an oversimplification with the immune system because you have to. But think of, the one side, your immune system, one gets stuff inside the cell to get stuff outside the cell.

And and one through 17 over here. Now, your thymus, which is in your breastplate here, it actually envelopes as you get older. And it controls this balance.

So as you get older your T th one is going down, which is stuff inside the cell. And th two goes up. So now you can't fight intracellular infections. It's not as good at monitoring for cancer.

Your natural killer your natural killer cell is kind of a downstream marker we use for that. But you have a lot of inflammation which then causes you know, atherosclerosis.

You know, basically a lot of, you know, brain issues. Now, also, you get reactivating infections, whether it's, you know, HBV six, Epstein-Barr, HSV one or so.

You may have Lyme, a lot of people that get Lyme, they just suppress it. But as soon as you add those two other things in general, that's when it comes out and then you get this vicious cycle.

So, where you get hypothalamic pituitary, you know, basically that hormone dysfunction. So your thyroid is low or your tissue looks normal, but your thyroid is low.

Adrenals don't work. You have low growth hormone, you get mitochondrial dysfunction, which then causes low, more, immunity problems. You get brain fog, you get immune activation of coagulation and, and then everything just keeps getting worse.

And the, you know, the mitochondria, what's called a cell danger response and then make basically more inflammation, which kind of getting out there know too much information.

But and then the cells go into senescence where they don't work. And and that basically makes makes everything worse. So so we found that really with these multi-system illnesses, they're, you know, they have all these different issues.

And that's why doctors hate treating it. Right. And where standard medicine has you have your cardiologist. Gastroenterologist, you have your, you know, and your specialty is that, you know, you need to treat everything.

But the key thing to treat, we're finding is the immune system. You fix that. And a lot of the other things get better. So let me just kind of break it down, because you use a lot of big words here.

And so on the rise, in the way I understand it. So I mean, you yourself, well, you went through some work. You're beyond just chronic fatigue. You have multi-organ failure that you went through right?

Yeah. And, and, and you write people like, like yourself. What you went through becomes sort of, a medical mystery. Right? And people can get diagnosed with all sorts of different things depending on their age and gender.

Maybe if they're older, they'll get them. It does dementia. They're younger. They get diagnosed ADHD, right? If they're a woman, they get diagnosed with like fibromyalgia, chronic fatigue syndrome. Right.

And so there's there's ageism and a gender bias when it comes to, you know, diagnosis these things. But once again, diagnoses are just things that we observe, into some sort of clinical relevance or a pattern of clinical relevance, and we call it something.

And then once we call it something, there's an allergists, there's a, there's a, there's a specialist for it. But what you went through was pretty extreme because you wanted to multi-organ failure.

So even, you know, your heart wasn't even pumping. It's like your body's turning up on itself. And you're right, it's the immune system. And the immune system is so complex.

It's so complex, that it's really hard to break it down into, hey, what is it? The immune system. And you're also right. There's no such thing as immune system going up or down.

It's not a directional thing. It's a switch. It's a different, different circuits. And so, you know, knowing that and knowing that the immune system is the thing to really focus on with chronic disorders, especially neurological disorders, even Alzheimer's, Parkinson's, multiple sclerosis, and everything like that, and mental health disorders as well, knowing that, what are some of the things that can modulate immune system the best?

How do we how do we approach this. Yeah. And and you know very good question. And that was the problem. My natural killer cell function for instance was zero.

You know. And so no matter how many, how much antibiotics they took and killing alive and of, of Asia, your body needs to take over, you know, the antibiotics just can't do everything and kill because of positive or hidden infections.

Right? Oh yeah. So I it turned up positive, you know Lyme. But these things now and I had super high VEGF, so all my veins were just gigantic. They weren't like, you know, a basically, varicose or I think they're huge.

And because I had high vision from Bartonella, it will secrete that. And just the published artists sweating like crazy and, you know, just just just feeling terrible.

But it wasn't until I fixed the immune system that the fraction of the dose the antibiotics worked, you know, and then also it lower that too, so that, you know, you lose that the inflammation, and that so as soon as you get the line with the Lyme does, it goes in into the cells, secrete cytokines, it's suppressed and then goes inside the cell.

Now it's chronic. And then you just start having this really, it's kind of accelerated aging, you know, and and the cells, if you have a chronic infection for a period of time, the cells will actually go into T-cell exhaustion.

And you'll see this around cancers, too, is that the cells surrounding it? We think they're fighting it, but they're just almost protecting it because they just get turned off.

But and that's why, you know, or people with years, will almost never do they have a normal immune system and then, all of a sudden get a mold exposure.

Oh my gosh, it's they have a compromised immune system. And then they get the mold. And it's kind of that triad that we see. What was the fine series for a second, because I don't think everyone knows it's chronic inflammatory response syndrome.

And it is different from what we learned in school, which is, more acute systemic inflammatory reactions like leading up to, infections, acute infections and sepsis and stuff like that.

And so it was defined as chronic. What's defined as chronic are different markers of the immune system that we weren't really taught to look for. Probably because there's not really a medication for it.

How Peptides Modulate the Immune System

And even though there is then, even if the medications provide the there's so much more complexity to restoring the immune function that's outside of pharmaceuticals that I don't think it's it's really hard for the, you know, the, the modern medicine to kind of pursue right now.

You let's, let's kind of get into the discussion of peptides for a second now. Now, I also treat a lot of people with these things and chronic infections or neurological disorders.

But peptides are very new thing for me. So tell me about, when you, when you discovered, the peptides and its effect on you and then what are you seeing now in people with peptide therapy?

Yeah. And so, I started which was a very common one, thymus and alpha one. So it's a thymic peptide. And, it's approved in about 30 countries for and and for infections and cancer to raise that immune system.

They banned it here because daddy came out showing it was safe and effective for Covid, so they banned it. But, I did that. We have a replacement for that, which it's damage in Alpha one that we we looked at the effective time and said alpha one and used metabolomics, transcriptomics and proteomics to look at the equivalent.

And it was a combination of time again and immune immune peptide too. But really so it was with thymic peptides are key. So to bring that to one, and we use TV4 frag now because you can take it orally.

So we'll we're thymus and beta four which is the most common thymic peptide. Is you can't take it orally because it's very long. And there's a part of it that, basically will stimulate mass cells.

So we took that part out and just did the tb4, but and then some nice things like, you know, BPC 157 that's probably the most popular go to for, for the doctors because it, it when I give lectures on this, I mean, there's so many studies on so many different areas people think of as a gut peptide, but it actually absorbs, it's equal potent if you take it orally as well as a shot.

It works for, you know, brain, works for traumatic brain injury. It works for depression, and it works for leaky gut. It works if you hurt your knee, you know, so it kind of does everything, you know, with, like, what is a snake oil?

But here's all the studies and, you know, people now, the doctors are kind of used to seeing the studies, but they're like, wait, why haven't I haven't I heard of this?

You know, and patients also say that like, well, well my doctor, how could I not know this? Because they're, they're can't be patented because they've been out they've been around in Europe for too long, you know, the Eastern Europe, kind of behind, you know, they're, all came from origin, from Russia.

So, really the immune modulators and for instance, like, alpha melanocytes, stimulating hormone. Right. So that that's produced and it causes, you know, causes like tanning, but it's one of the most anti-inflammatory substances that you can take.

Now it's too big and gets broken down very quickly. But the last three amino acids of that called Cfpb is ten times as potent. And the best mast cell inhibitor.

And it has tremendous broad spectrum anti microbial effects. So whether it's Candida viruses, bacteria you know they can be it was more potent than that flu can at a at like a micro gram.

They actually even a nanogram compared to the they flu can't what was needed. So it's nice really. The core is we really want to lower the inflammation, raise the, you know, the natural killer cell, but everything goes with that.

So now you have an immune system. But it's also at the same time stimulating, you know, stem cells and all these things that rejuvenate. So when you look at, you know, the famous when, when it kind of basically.

Right around age 12 or so, it starts declining. And then when it hits a, a low point and kind of stays or around age 40, and that's when all those diseases of aging start, you know, because you have all this inflammation going on.

So if you can just snap it back and there's all these articles like, why are we forgetting about the thymus, you know, and, and we don't check thymic levels and replace the thymus.

But and you look at for instance, also there's a pineal, peptide, at Battelle and there's also pineal gland. Like it will increase re okay. And That it, it will increase telomeres and kind of reset all the hormones.

So for just one study, a 15 year study with, people over 65 with cardiovascular disease for over 15 years, you only give them six doses. And they found that the ones who who got the Apatow and the, thymus in basically their cardiovascular, function got better.

They had two, 2.5 fold less cancer risk, you know, two fold less mortality, significant improved quality of life with a much improved endurance. And it's kind of like in these are so safe, like they can't find a toxic dose and they've tried you a thousand times the dose and the nontoxic, so it's really nice with that.

And you look at, you know, what this is about, you know, basically, you know, brain disorders that, you know, all these things, you know, affect the brain with, with this multi-system you have low, immune system.

That's when these like, let's say even HSV one, which has been shown to be associated with Alzheimer's. And you

have, you know, studies by McDonald. Did head of Harvard brain Bank, did biopsies found 70 plus percent of people with Alzheimer's had Lyme.

And we find, you know, ALS we treat ALS patients that come in a wheelchair. They're jogging and they and they go, I have not seen one that didn't have line.

Didn't usually bbca. And they go back to their neurologist and they Pooh Pooh the treatment and and, you know, they're like, oh, misdiagnosis. Well, three of you, you know, and, so we just found that, you know, there's, there's so many things.

And then I mentioned, you know, mitochondrial dysfunction. So you can take mitochondrial peptides that boost the mitochondria. And, and that works really well for the brain.

The one of our doctors, who or daughter had, OCD was kept pulling out her eyebrows. Right. And we gave her with a five amino one and Q, which increases NAD in the mitochondria and years she had this problem.

They did everything, every medication you can think of and all that, you know, therapy and these biofeedback. And two days she didn't do it anymore. And, what do you think?

Let's. If we break down what peptides are, peptides are proteins and their specific, sequences, building blocks of proteins or amino acids or. These are these are peptides.

And, so what you're saying, as I understand it, is that these peptides are able to change the way our immune system is responding to things, whether it's infections, environmental toxins, etc., etc.

and so that itself can modulate the diseases that we may be diagnosed with. Yeah. Yeah. That that's the indirect effect. Yeah. And, and and for instance I yeah.

Like we have like autistic kids come in for you know, one I remember our first autistic kid came in, the mom sent a video of him playing basketball, which was him looking at like this and the basketball going by him, and he comes in.

We had to see him beforehand because just couldn't get near him throwing F-bombs. Just before we did, you know, nasal peptides.

Peptides for Neurological and Autoimmune Conditions

We did some, stem cells at the time, and, and, and we worked on the gut. We did other things, but peptides, were the main treatment. And now he comes in and he wants a hug.

He's sarcastic. He's playing not only basketball, gymnastics. He gives himself a shot. It's just like a new kid, you know, it's crazy, but, you know. So what do you like?

Like, you know, if, if, you know, first of all, you know, just peptides in general, right? So, now these are the things that you kind of just take in a supplemental form, orally or are they oral or are there injectable?

And what forms of peptides are there. Yeah. So most of our injectable because they're too big to put real orally. But we're we did with integrated peptides.

We used to have an injectable, peptide company. But with the way in lower state lines and a lot of regulation, we didn't do that. So we work with a team of FDA attorneys to, allow them to be supplements.

So we have, BPC, Cfpb, we have Schriever license, which is neuropeptides, and we've got more, you know, testimonial, feedback on that, like people with traumatic brain injury that couldn't function.

And within several weeks they're just like, oh my gosh. I'm just I'm, I'm, you know, I'm back to my normal self or, you know, getting there and tribulation, has been around for a long time.

So proved in 30 plus countries for dementia. Lots of studies on it. But they banned the injectable in the US. Began safe and effective. It hasn't been.

It was no report of any, side effects or anything. But the good thing is, is that it's small. We're like peptide. So we can put it in a capsule and it's a supplement.

And, and so allows people to, to, take it that way. So, you know, these, these things are used in other countries, right, as you said. Right. And Eastern Europe and whatnot. Right.

What is what is the hesitation in the US? Why is this so kind of behind, I guess, in the treatments of this? Because it's not it's nothing we learned in school or a residency.

No, no. Yeah. And it's it's interesting because I didn't think we never knew about this other layer. You know, we kind of think of the controlling layer maybe, you know, the hormones and, you know, hormones basically, you know, they're secreted from a gland.

They go into the cell, into the nucleus, they change protein synthesis, slow on, slow off, and then peptide aids are produced in a very tissue specific manner.

And, work on the cell surface. They're a signaling protein. Have more of a clear trophic multi, you know, kind of signaling effect, more like a, supplement, but much more potent.

And, and for instance, they turn on certain pathways. That does work. Epigenetic. Lee. And, you know, just, you know, now there's, you know, we I think it's like 40% of the new drugs being approved are peptide, but and they're finding and even tiny peptides, which really is great for us because we can use those for oral, absorption.

What's interesting, a lot of the new drugs are actually peptides. And there's some big ones are out there right now, especially for weight loss that are injectables and stuff like that.

And people don't realize they're peptides. But, before they actually they can't necessarily patent part of the drug. What they do pattern is a delivery device, right?

The injectables and stuff like that, that. And so, but we're seeing more and more and more peptides in the pharmaceutical industry. So my father's is one of the deans of pharmacology at the University of Houston Pharmacy school.

So his piece is science. Right. And so, and he's he's been involved in research in peptides and animal models and cancer and atherosclerosis and Alzheimer's model forever and stroke model in mice forever.

So, it's and it's it's an interesting thing that, this is, you know, a lot of stuff I kind of experience as a kid and doing experiments and being exposed to that is the stuff that we're talking about now.

And so, and now so much of the, the new, the new treatments and there's a new one coming out, another peptide coming out in the in the Alzheimer's disorder is now focus on like neurodegeneration and TBI and PTSD and stuff like that.

And in the, in the formal world. And so we've really turned really interesting corner in the last in the last eight years, which I thought is, is quite fascinating. Now, in the fact that there's one, there's one, for instance, is human in and they named it human in because it made Alzheimer's patients human again.

That's a, that's great one. Yeah, yeah. Are these things are these peptide treatments. Are they covering you up symptoms or are they getting to the root cause of symptoms.

They're they're getting to the root cause. That's the big difference. For instance, like, you know, I had pots, which is, you know, where your blood pressure drops and pulse goes way up and with immune modulation, and, you know, people think it's that's so hard to treat.

And it is, but you basically fix the, you know, the immunity and also, you know, the mast cells, that, you know, and one like the Maxwell mastermind group and smartest nerdiest I mean, that is in in a good way.

They are just amazing. But they're stuck on going after the mast cells directly, which that's fine. But there's nothing wrong with the mast cells. Its problem is they're being stimulated.

So you want to look upstream. And again modulation like the Cfpb, BPC. Like we have this, you know, nine year old girl came in with Crohn's. They're going to do collect me because all the medications, nothing worked on her.

And she just, you know, tons of like a bloody, diarrhea, you know, multiple, multiple times a day. And gave her VPC, Cfpb, and tb4 frag. And, I think we started with BPC actually, because you want to do one thing at a time.

She was about 60, 70% better. And then by the time we just kind of added those in, she was very, very good and didn't need to do a collective me again.

So these agents were able to modify the way that her immune system works, so it doesn't necessarily have to attack her colon to the extent that it's attacking.

Right. Yeah. And so yeah, and it's oh go ahead. So what if and and I'm asking then in your case for example right. You had the babka which is an organism.

And you had the Lyme disease was another organism. But what if there's the active organisms within the body? Are you like, I guess the best term is, are you trying to go against nature by taking these peptides, or are you helping the immune system do what's supposed to do?

Like what's the category here? Yeah. So no, I think you really helping the immune system. What to do? For instance, where they looked at Covid patients, their heat, their tb4 levels in their lung was zero.

And when you give people, for instance, and all these, these levels drop, especially the thymus, you know, BPC same thing. So you're really doing just an optimization and now you're, you know, basically lowering the inflammation by say, well, okay, now they're going to be prone to infections.

It's actually the opposite. They can fight infections better. And and they're antimicrobial as well. So then there's antimicrobial peptides like L 37, which we'll add in after we modulate the immune system.

And with, you know, wide, antimicrobial effects. This really reminds me of the similar effects of like, cannabinoids and CBD. Right. You have a very immune modulating effect, like helping the immune system, like in a guy that's guiding force, you know?

But I guess these are far more direct in what you're trying to do. Right. And and it's interesting, like BPC, it's kind of homeostatic in that, let's say you have a low blood pressure.

It will raise it. You have high blood pressure. It lowers it. If you're hyper crangle, it brings it down. If you don't, if you can't coagulate, it will help you.

You won't bleed. So it it's kind of like kind of a smart drug type thing, you know? Yeah. So let's go back to your, your example, about parts of parts, for those who don't know, it's possible orthostatic tachycardia syndrome.

It's, it's very, a lot more common than most people think. And but basically, the brain and in the body, in the entire system doesn't know whether to be in this fight or flight response or rest and digest or sympathetic parasympathetic system.

And there's milder forms. We call this autonomia dis meaning impaired autonomy is autonomic nervous system. And so there's a lot of people, there like this, and there's a lot of people who have chronic infections that are like this.

But the one hallmark is that they're always, you know, kind of hyper primes, right? Their immune system is primed to react to everything, whether it's a physical stress or even a psychological stress.

It's kind of hyper primed. And then the body's kind of goes haywire into their shut down mode. And, you know, people call this a pause episode, for example, right now.

So what then, what the peptides are doing in someone like that, which I guess was you in that situation, right? Is that it's it's allowing the body's immune system to create sort of this, this calm.

Hormones, Thyroid, and Mitochondrial Support

Hey, I am not in danger. And therefore you can kind of go back to like homeostasis, go back to the balance, in fact, like, think about that correctly.

Yeah. Yeah. Definitely. And when you're in fight or flight, like for instance, you're, you know, you're stimulating really this, like, let's say with the cortisol control and releasing hormone, you know, basically will, stimulate Acta, which then stimulates cortisol.

Now, with, with stress, CRH also is a very potent mast cell stimulator. And so, you know, that one way and then and also just the, the sympathetic drive drives the immune system like that as well.

And so by doing that immune modulation and doing things for mast cell and in addition that those things just go away and and, and but if you miss that like in, for instance, you know, we find, some of the key markers, is natural killer cell function.

That's kind of what we use as a downstream. It's not a teach one, but it's a downstream marker. And and then for the other side, we use C4, a and human transforming growth factor beta.

And that's when it causes significant fibrosis. You see that in Sears? And that, is the ones I mentioned by law and Cfpb and TV4 frag directly lower that.

And that is, you know, what caused my heart fibrosis and also causes chronic kidney damage. So I, I was in you know, my creating was to, for running around.

So yeah, it was at multi-system illness and you know, these these are the people that we see now. And it's kind of nice because they all have the same pattern.

I mean, you look at, autistic kid and Alzheimer's kid, a Parkinson's a, just, you know, old, frail person and their immune markers, these biomarkers look about the same.

Yeah. Yeah. I want to go into the mix, traumatic experiences. Right. And so we know those people with, traumatic experiences tend to also exhibit sort of the same disorder.

No Mia type of symptoms. How does that play into the picture. And how does that, how and how do peptides affect that population as well. Yeah. And and so with the I said they look the same.

And, you know, we see these vets with traumatic brain injury. They look the same, you know, but we'll be more the immune system of like the PTSD looks the same as, as brain injury okay.

Yeah. Yeah, yeah. And and then so you, you fix the immune system and then you can add, you know, all the, things to boost brain function. There's also see link Cmax, which are direct, you know, Tropic and improve memory

and cognition.

Also lower inflammation the lower you know, microglial activation which are like the mast cells of the brain. Then mitochondrial peptides also because, you know, you're the they're low and you get depression.

And they also I mean, I love T3. We have a nonprofit National Academy of Hypothyroidism. What you really put there, I did a number of review articles on thyroid, because the way we practice thyroid in this country is wrong.

Anyone who is chronically ill stressed is toxins. They're they have, pineal, hypothalamic pituitary, you know, thyroid dysfunction. And we were taught in medical school.

Thyroid is easy. If your thyroid levels drop, your TSH should go up. And that tells you your low thyroid. If it's normal. Normal if it's if it's low, it's high.

But with chronic illness the TSH goes down. But the kicker is that because you have mitochondrial dysfunction okay. It's actually active transport. Thyroid doesn't diffuse into the cell.

That especially T4 does not get into the cell. So T4 is up. And if you look at depressed patients that they have low normal TSH, high normal T4 and doctors think they're oh they're kind of high thyroid.

No, they're really low in fact, if you look at the largest study done on depression was a star report. And they found they gave it all different, I think it was, you know, eight or, different, antidepressants.

They also added T3 and one of the groups got T3 straight, straight T3, not T4, which is usually given, which is the precursor. And you hope it converts.

They find it outperform the antidepressants. It worked when the antidepressants didn't work. When the antidepressants work, they tend to only work for about a year and stop working.

And then you could also add the T3 at that time and it would start working in the left side effects. But they did not help fund the study. So they didn't they didn't end up in the abstract so doctors don't know it.

But another study real quick, like 135 bipolar patients, treatment resistant, tried on average, 14 different medications. No response. They give them all T3, k straight T3.

So really, but the straight T3 and they found 80% responded and about 30% total resolution of symptoms. So if you know we we now know that there's there's our immune system that modulates everything the way that react to things.

Right. And they play very interactive with the hormonal system that's in our body. Right. And so when someone asks the question you know is my hormone or my hormones out of balance?

The real question is, is my immune system out of balance as well? Right. Yeah. Because I have one talk that's, you know, a big thyroid person. I love T3 and so gave a lot of thyroid talks.

But you you look at, let's say, someone with Hashimoto's, that if you monitor the immune system and lower those antibodies, they feel better than if you give them thyroid, even though they're going to feel better with thyroid as well.

But modulating the immune system there, it's going to increase their mitochondrial function. It's going to allow the thyroid to get into the cells. All that.

And then especially when you combine it with, with T3 because T3 getting too much information, but is needs, less energy to get into the cell, the active transporter.

So that's why it works in depression when T4 doesn't. And there are a lot of studies, they'll say, oh, thyroid doesn't work for depression because they give T4 leave the wrong thing, you know?

Yeah. So, so, yeah, you know what? The way to think about it, I guess, is, you know, we have we have the interplay of our immune system, our hormone functions, the function of our organs.

And so even though it's a it's a complex array of different things, we really have to take it holistically. Right. And if someone has you know, persistent traumas or maybe they're holding on to traumas in their lifetime.

Right. That also modulates the, the immune response, and maybe if someone has had, you know, concussive injuries and traumatic brain injuries as well, then that plus potential trauma is plus there's also medical trauma because people go through medical doctors and not really being validated by the disease taking diagnoses.

Right. There's a medical trauma that's there too. So it creates sort of, this, you know, one of my friends called the the band of misfit patients that try to find something that's kind of there and not necessarily succeeding.

Right. And but we're seeing the immune system be really at the center of modulating all this. But, you know, I think that we we still have to thank the immune system because I think our immune system has been developed to protect us.

And part of the reason our organs start slowing down and shutting down is the immune system. So on our body, they pay attention like something's going on.

You have to deal with this, you know? And I think we're taught in sort of the Western society just like keep pushing, keep pushing, you know, especially as a medical doctor.

Right? Anesthesiologist. Keep pushing, keep doing your thing. Yeah.

Clinical Applications and Future of Peptides

And sometimes we just like, slow down and and smell the roses and really honor the, the fact that we do have senses and our senses can be very complex, but all those arrays are still tied back to the fact that we really have to kind of pay attention to our bodies.

Do you think that with what you're doing, especially with intuitive peptides.com, do you think, that there's the time is now like here for really doctors in the, in the medical societies to start considering like peptides as forms of like the primary treatments for these disease states.

Oh no. No doubt. And every practice and position that we, we taught, you know, that we have a training program that, year long, we're finding a new, an official just, training program starting in, January, second week of January.

It's at my better medicine.com, but, we yearlong. It's, I think it has to be. And it's really making the round the headway with the biohackers, you know, because it's very anti-aging and, you know, for instance, you know, there's some peptides that are senility that you get rid of the senescent.

And I was this was just on my desk, but, you know, and these rats are the same age and one got analytics where you you knockout basically you get these cells that go into basically senescence.

But it also got zombie cells. They don't work. But even worse than that, they're secreting all this information, you know, so they're causing tons of problems.

So your body gets should get rid of those. But if you have a low one your body can't kill those. And there's no, proper autophagy where the cell knows to.

Hey, it's my time. You know, and you increase that autophagy or, you know, get rid of those senescent cells, like

people's heart failure, dramatically better diabetes.

You know, all these, you know, neurologic and neurodegenerative diseases get better. And because a lot of the, you know, these neurodegenerative diseases almost always are infection and toxins and stress and, and, and then they have again, but you can't fight the infections.

And so, you got to, you know, get the body lower that inflammation, you know, they got brain on fire and, and, and there's a lot, you know, different peptides like, you know, people can't sleep that they're, they're basically their sleep center is it's inflamed and there's a delta sleep inducing peptide, which doesn't make you sleepy, which you that kind of sounds like it would, but after a couple of weeks, it basically lowers that inflammation starts working again.

We find when you combine that with the pineal peptide, and a growth hormone especially, it's like people can't sleep now they start sleeping. Great. And I'm kind of validate what you said a little bit earlier is that, you know, I do a lot of quantitative EEG analysis, basically brain mapping.

And I tell my patients all the time, like patients like, hey, do I have PTSD symptoms or do I have, traumatic brain injury on the SCG? I'm like, you know what? They all look the same.

And they all look like your immune system is so revved up to trying to get rid of something. Right. And we have that fight or flight. Yeah. You can tell within like, you know, get used to like on the phone, like you getting like 30s so you can tell.

Yeah. Right. And then there's always, and there's always patterns that are there that we really have to, you know, uncover. And, and the brain is, is very fascinating because it, it the brain is able to create other neural circuitry to compensate for this persistent like fight or flight and then preservation mode.

Right. And we can we see that on the, on the brain mappings. And that's one of the things that we do with, with neurofeedback and stuff. But, you know, that's just part of the picture.

You know, I think that, I think that what we have to really understand is as, as a medical field really has to kind of communicate together. Right? Because there are data out there, that we're not necessarily receiving either because we're not taught about it or it's just too new.

But it seems like the even the big pharma world is turning to peptides for some of these, newer Aids, drugs, that's been developed, you know, right now, we're we're actually starting clinical trials.

We started a drug company, and we went to the dark side, because we have a peptide shot that gets rid of tinnitus, very quickly. Ears. So that's that's huge.

Yeah. It's huge. And that company is. What is it K. J. Bell bio for. Yeah, yeah, yeah. So, and so okay, now now you have to explain that to me. No, no. I'm perplexed.

So tonight it's it's very complex, ringing the ears, very complex. Multiple things that are involved in it. And it's heavily immune modulating. And so, how how did that come out?

We just found, the kind of by chance and, so if someone was injecting someone for TMJ and it went a little too high, and then he's like, my tinnitus is gone.

Oh, wow. Great. Yeah. And also works for hearing like we had a it was a little like a party for some of our patients. And they were doing some injections.

One girl had just poor hearing and we did it. And she's like just starts crying because she could hear better. It took about seven minutes, you know? But powerful.

Yeah. With the, with, with the nerves. And that's the interesting thing. Like, like BPC, let's say someone else, you

know, peripheral neuropathy. BPC TB for all studies show it works, in fact, like they'll slice a rat's, sciatic nerve, they'll do nasty stuff, you know, rats.

And if they put BPC or girl back together, if they don't, it doesn't. And there's also air area training and there's a, there's a lot of a lot of things, that, that there's a lot of crossover, but, they were figuring out new ones, every day.

And we're finding that actually very, very small by peptides can be very powerful. And you kind of think like, well, you know what? It's just it makes no sense.

You know, we wouldn't think that that would do anything. And we can't find the receptor. But one study did show that the receptor was harmonic, which was very interesting.

But which kind of reminds me of, you know, with Emfs and you look at some studies on emfs and they put like a rat in a box and they put the cell phone in the middle and wait three weeks and then they sacrifice, and they got hippocampal degeneration, you know, and, and we're getting bombarded to always tell people, turn off your Wi-Fi at night, you know, don't put your cell phone of up to your ear.

Electric cars. It's a reverse Tesla cage. And so, okay, do it at your own risk. But are so many things that, that are out there that technology has really made our lives easier.

But at the same time, what is it doing to us at the cellular level, at the genetic level, at the molecular level, it's really hard to to, to understand.

And so this has been a fabulous, discussion. How can people find more about this type of treatment? More about you, more about your practice. Yeah. Well, we, again, we're a medical group in El Segundo, California.

We also do, you know, Skype visits and things like that, but, then we have integrated peptides where you can, order, peptides there. If you're interested in thyroid, especially going to National Academy of Hypothyroidism and, I think hopefully I'll convince you that the way we're practicing thyroid cancer is wrong.

And then we'll be again starting that, training program. Currently also doing with a forum the, the, on the board there for the, International Peptide Society.

So peptides are getting in there, you know, and, and so that's they have, 4 or 5 different, you know, conference of the year on peptides. Well, thank you so much for being on.

It's been a fabulous discussion, very in-depth discussions. I want to thank you, for that. But go ahead and check out, the website. And can you just spell your last name so people can type it into the URL?

That way? And, holter f l t o r f Colter Mediacom and then integrative peptides. Excellent. Thank you so much. And you know, I want to, you know, just, and this is sort of my first introduction into the understanding of peptides, not at the basic bench science level, which I've been exposed to most of my life, really at the local level.

So I'm excited to learn, you know, give me your address. Get get that to me. And, well, we'll send you some samples. Try it out. Thanks a lot. All right, everyone, thanks for, checking in.

And, we'll chat with you later. Bye bye. Thanks so much. Appreciate it. We.