How to repair your mitochondria with immune-modulation and synolytic peptides.

Laura Frontiero, FNP-BC interviewing **Kent Holtorf, M.D.**

Laura Frontiero, FNP-BC
Welcome back to another episode of the Restore your Mitochondrial Matrix Summit. I'm your host, Laura Frontiero, I'm bringing you experts to help you boost your energy and fix your health so you can build the life you love. And today my special guest is Dr. Kent Holtorf. Hi, Kent. Welcome to the summit.

Kent Holtorf, M.D.
Hey, how you doing?

Laura Frontiero, FNP-BC
Good, okay, this is gonna be, I'm so excited to have you on the summit. I've wanted to do this interview. You're the Founder of Integrated Peptides and you're a total mitochondria specialist. You're a complete science geek, and I'm super excited to have you here 'cause you know everything. You're the Medical Director of the Holtorf Medical Group with 22 centers and 9 franchises. You do things big, I've noticed Kent, you really go big with everything you do.

Kent Holtorf, M.D.
There's a lot of mistakes, I'll tell you how not to do things.

Laura Frontiero, FNP-BC
Yes, but you just keep going. You're the Founder and Medical Director of the nonprofit National Academy of Hypothyroidism. You're also the Founder of Integrated Peptides, like I mentioned, and you bring doctors and patients truly the highest quality natural bioidentical peptides as supplements. We're gonna get into that today and talk about those peptides. You're an internationally known lecture, author and innovator in cutting edge research and treatments. And you've lectured at almost a hundred CME approved medical society, conferences and summits. So nice to have an authority here with us. Everything you say we can take is gospel, obviously, you've proven that. No, I won't doubt you. Anyway, you are on the steering committee and a lecturer for A4M and the International Peptide Society. That's actually where we met was A4M and that's the first time we met, and you've published a whole bunch of peer reviewed endocrine review articles. Here's the thing I find really fascinating about you, you know, the endocrine system is this multisystem poorly understood. And there's a lot of, as you say, long held dogma in endocrinology and infectious disease, and it's inaccurate. So you're here to break down the truth and give us some accurate information. So thank you, thank you for being here.

Kent Holtorf, M.D.
And it all has to do with mitochondria, it all fits.

Laura Frontiero, FNP-BC
I know, I know. So we were talking just before we jumped on this interview and of course you said Laura, like this mitochondria is the foundation of everything. I mean, if your mitochondria aren't working, you can't heal from any disease process. So we're gonna get into that today. What? So let's talk about how common is mitochondria dysfunction, first off, is it something that's happening to everyone? Is it rare? How common is it?

Kent Holtorf, M.D.
Yeah, basically it's anyone, if they're not totally young, healthy, not stressed, not exposed to toxins, pesticides, plastics, EMFs, any chronic infections, have any chronic illness. If they don't age, then their mitochondria are fine. Other than that, they got mitochondrial dysfunction, which is becomes a vicious cycle causing more and more problems.

Laura Frontiero, FNP-BC
You pretty much just said everybody watching has mitochondria dysfunction because there's probably no children watching this. So pretty much-

Kent Holtorf, M.D.
The older have it too. They just had a baby with total congenital heart failure and they basically cultured mitochondria and just injected like billions of billions of mitochondria in the heart, totally normal.

Laura Frontiero, FNP-BC
Wow, so basically we're all suffering from some form of mitochondrial dysfunction because we live on planet earth and there's a lot of toxins here. And so what are the causes?

Kent Holtorf, M.D.
And stress too? Stress' the killer.

Laura Frontiero, FNP-BC
Yeah, we put that in the toxin bucket. So what are all the causes of mitochondrial dysfunction and how is it possible that a baby is born with mitochondrial dysfunction?

Kent Holtorf, M.D.
Yeah, so, well, this baby did have some genetic defects, but if you look and it kind of becomes a chicken or the egg. And like when I had chronic Lyme disease, and Babesia, and Bartonella, all that and did three and a half years of the highest dose IV antibiotics that would never give to anyone else that, it didn't do anything. And why was that? Because had no immune system. And you can't take enough antibiotics, your immune system has to take over and it's oversimplified, but really you can break it down to two main sides. So TH1 gets stuff inside the cell, TH2 gets stuff outside the cell, along with TH17. Now, as you get older, sick stressed, exposed to toxins, what happens is your TH1 goes down and your TH2 goes up, which causes a lot of inflammation. And a big contributor to that inflammation is the mitochondria dysfunction. So basically, let's say you get an infection, it goes into the cells, the mitochondria will sense that, and they'll turn off the energy production and start producing oxidative stress instead. And then what happens, so as

you get, and then if the T-cells, the TH1 doesn't have enough mitochondria function, they're not strong enough to kill those cells off that's what's normally supposed to happen. So many people will check would've be become kind of an immune modulatory clinic. And 'cause everyone's immune system is so screwed up. Their TH1 is way too low and their TH2 is way too high.

Laura Frontiero, FNP-BC
So real quick, Kent for people who are not practitioners watching right now, explain a little bit more about TH1, TH2. Why should they care about that? What's important about?

Kent Holtorf, M.D.
Yeah, so the, the TH1 in your body is the side that get stuff inside the cell and the TH2 gets stuff outside the cell. And so usually they're balanced, but as you get older, sicker, more stressed, it starts going like this. So you can really look at someone's physiologic age by that TH1, TH2 ratio and anyone who's sick, they'll have that high TH2, low TH1, inflammation, associated with atherosclerosis. They get cancer, chronic infections, basically insulin resistance, you name it, it's associated with it. So it becomes, again, the immune system causes the mitochondrial dysfunction, but then the mitochondria dysfunction causes the immune dysfunction and which then also causes pineal hypothalamic pituitary hormone dysfunction.

You get basic gastrointestinal dysfunction, they got brain access, you get, so it all goes to a vicious cycle and you say, well, what's the cause? And then like when your TH1 is low, you can't fight really cancers very well, new infections, but also reactivating infections. And so let's say someone with Lyme, we say Lyme, as if they end up having Lyme other things. They also get reactivating Epstein-Barr, which everyone has and CMV, but your immune system that gets intercellular infections is too low. So now they reactivate, they suppress the immune system more, they cause minor dysfunction, then it keeps going.

Laura Frontiero, FNP-BC
Sounds like a terrible cycle that you can't get out of.

Kent Holtorf, M.D.
Yeah, so you have to address certain parts of that, including the mitochondria or you're just never gonna get better.

Laura Frontiero, FNP-BC
All right, so what are the causes? What gets us into that dysfunction in the first place?

Kent Holtorf, M.D.
Yeah, so kind of the classic, when it was kinda really looked at was chronic fatigue syndrome, and you look at, they did muscle biopsies and people with chronic fatigue syndrome and 90 plus percent, you could visibly see their mitochondria were screwed up, but we'll, there's no great test for mitochondria. What we test is basically when people come in, we'll check their basal metabolic rate. So how much, how many calories they burn over 10 minutes and extrapolate for the day because your mitochondria basically, produce the energy in the body. So if your mitochondria are low, it will show that. So you get not only weight gain and to better lose weight or even dieting, significantly for three cycles causes mitochondria to drop and they don't go back to normal even when you eat normal. So when people say I've wrecked my metabolism, they have. So unless you intervene, you're gonna have low metabolism.

Laura Frontiero, FNP-BC
What would the intervention be?

Kent Holtorf, M.D.
So you can now, if they're not really that sick, let's say they just dieted. Thyroid, so thyroid is kind of the gas pedal for the body, so it will boost mitochondria, T3 will boost mitochondria, T2 will stimulate mitochondria to basically divide and get more of those. But if they're sick, now you have to do a couple things. You have to raise that TH1 to get rid of those cells that have dysfunctional mitochondria, and, or boost the mitochondria, which are number of ways to do that. But if you have a bunch of cells that have dysfunctional mitochondria, they're making basically instead of making energy ATP, they're causing oxidations. Now you're stimulating oxidation. So what you really wanna do is get rid of those cells first and then boost the mitochondria.

Laura Frontiero, FNP-BC
Okay, so let's talk about getting rid of those cells.

Kent Holtorf, M.D.
Yeah, so there are a number of things, and this is now becoming, I think you're gonna hear more and more about this and for the antiaging realm where basically, immunosenescence which meaning, that your immune system basically ages or even cellular senescence to rest of your body. So your body normally gets rid of those cells, but they're not doing it now because our immune systems are so suppressed from all these toxins, EMFs, chronic infections. And if you have a chronic infection for extended period of time, whatever that means, month, two months, let's say it's mold, for instance, and mold toxins also suppress the mitochondria. and basically the T-cells will just shut off. So now your TH1 just goes, we can't do anything about it and also for cancer. So they're around a long time before you know, and if you look at the T-cells around the cancer, they're not doing anything, they're actually protecting the cancer. So if you either get rid of those, if they're called senescent, which is very similar to T-cell exhaustion, but T-cell exhaustion, you can reverse.

Laura Frontiero, FNP-BC
Like a senescent, like senile.

Kent Holtorf, M.D.
Yeah, so they're just-

Laura Frontiero, FNP-BC
They're not working anymore.

Kent Holtorf, M.D.
They're not, they're done. They've given up pretty much. But they're still unfortunately there and they're working, but they're making oxidation instead of energy. You know, if they're exhausted, you can give them mitochondrial boosters, mitochondrial juice, whatever. And then get those going again.

Laura Frontiero, FNP-BC
But timing is important, right?

Kent Holtorf, M.D.
Yeah, because if you have someone, let's say they've shown like diabetes or a congestive heart failure, they may have up to 50% of their cells are senescent. So if you try to boost those people's mitochondria, you'll probably make 'em worse. But if you get rid of those cells that the body should have in the first place, and if you look at all these chronically ill patients, again with diabetics and atherosclerosis, and congestive heart failure is that their immune system or TH1 is very, very low, totally consistent. So if you look at their natural killer cell function, super low, in fact, that's a marker for chronic fatigue syndrome, which is, what does that mean? I really think did a disservice because it gave doctors the license to say, Oh, you got fatigue, you can't sleep. And posers fatigue, Oh, you got chronic fatigue syndrome, here's an antidepressant. Instead of looking at the cause, which the cause is usually a chronic infection, which then causes all these things. And so then you get immunosenescence, you get mitochondrial dysfunction, and then it just causes all these systems to basically not work.

Laura Frontiero, FNP-BC
So you mentioned, you have to clear out the senescent cells before you can boost mitochondria. So what would you suggest to help clear them out? How can we do that?

Kent Holtorf, M.D.
So the first thing you wanna do is boost that TH1, and there's some herbs that can do it and modulate the immune system. If you look at most treatments that work well for chronically ill, ozone, even IVIG a lot of the herbs, they're immune modulators, even vitamin D, immune modulator. But a lot of the peptides, thymic peptides, see also your thymus controls that. So your thymus, basically, you're born with it. It's raising your TH1 and then at about age, eight, it starts involuting, it starts basically going away then by about age 30, it's about 5 to 10%. And if you notice, about 10 years later, that's when all those diseases of aging start occurring. So really with this anti-aging, if you can get rid of those cells or boost the thymic function, and how do you do that? It's very simple. You get thymic peptides and it brings those that TH1 now back up and it now can kill those cells that have terrible mitochondria.

Laura Frontiero, FNP-BC
It sounds like aging in reverse.

Kent Holtorf, M.D.
Yes, exactly.

Laura Frontiero, FNP-BC
Okay.

Kent Holtorf, M.D.
So people go, Oh, to kill my cells? Yes, you wanna get rid of bad cells, it's very important you get rid of bad cells, you know, autophagy, but your body doesn't do it very well with low TH1, you can't do it.

Laura Frontiero, FNP-BC
So what about all those things we can do naturally to help with autophagy like, cold plunges and heat therapy, and exercise, and intermittent fasting. What say you about all those things?

Kent Holtorf, M.D.
All those work, definitely. Just to what extent? And I'm pretty lazy, I'll just take a pill or a shot.

Laura Frontiero, FNP-BC
So basically, you're saying you've created a magic pill here.

Kent Holtorf, M.D.
Yeah, but I have a machine too, that you lay on and it basically works. You put the electrodes on and it pushes pumps blood back in your heart when it relaxes. So it's like jogging for two hours and 15 minutes, and you're laying there, you can drink a beer and watch TV, you know?

Laura Frontiero, FNP-BC
Oh my gosh, we're not endorsing, we're not endorsing this Kent. We're not telling people not to work out.

Kent Holtorf, M.D.
I'm a very lazy person. And then you take the peptides and make your body think it's exercising, or, really what you wanna do is immune modulation, lower that inflammation. And we'll get into cert two and something like that. But, and you're really anti-aging with diet and exercise, but it makes it so much better. In fact, I got allergic to one peptide that it was like doing five workouts with one. And I got alert to, so I'm like, I'm not working out anymore. I don't wanna have to do five times the workouts, but now we have a new one for it. So really the key is, and you look at the studies on... So we talked about the thymus. If you add a thymic peptide, which is gonna modulate that immune system, along with a pineal peptide, a pineal gland, we think of producing melatonin, sleep, but you control so many things. Now, for instance, a study with patients over 65, with significant heart disease, they just gave them six doses and followed 'em for 15 years, they found the ones that got the peptides, their heart, their cardiovascular function got better instead of worse on standard care. They had dramatically like three-fold less cardiovascular events, overall mortality and cancer, And so just think if you take, and then the people who took more doses actually did even better. They were like five times less death, morbidity, cardiovascular mortality, and cancer, like, okay, why aren't we doing this?

Laura Frontiero, FNP-BC
Why isn't everybody taking peptides?

Kent Holtorf, M.D.
And there's no, they can't find a toxic effect, you know, even a thousand times a dose.

Laura Frontiero, FNP-BC
So we've gone down the peptide rabbit hole and I'm glad we did because I really have, you know, I really just wanna pick your brain about this 'cause you are the authority on peptides and peptides are relatively new to me in my practice. And so I wanna go down that peptide hole here, what is a peptide? Let's start with that for people who don't know what a peptide is, what is it? Let's start with the basics.

Kent Holtorf, M.D.
Yeah, what the heck is a peptide? And when you think of not too long ago, we thought your hormones were controlling everything, right? Hormones are slow on, slow off, peptide, and they go to the nucleus and they change protein synthesis. Now peptides work on the cell surface and they're very pleiotropic meaning, they have lots of effects. They're more like a supplement in that respect. And they work through secondary messengers and they're quick on and quick off, but they also work epigenetically. So they're kinda the fine tuners of the body. And they're very specific. So we can work on the immune system with the thymic peptides. We can work on actually fertility, Epitalon. Now this was a rat study, but we used it all the time in humans, they had 135 rats menopausal. They gave them all Epitalon, they all started menstruating, 25% had normal live births.

Laura Frontiero, FNP-BC
Oh my gosh. I'm not taking that peptide, am I? I don't wanna have another baby right now. It'll be 50 this year.

Kent Holtorf, M.D.
You better watch out. But we raise people, your FSH comes down, the anti-mullerian hormone goes up, but it's pretty cool stuff. And it will also check before and after, now with the advances and looking at someone's biologic age and we'll see it just dramatically reduce and they sleep better. Melatonin levels go back to normal, hormone levels go back to normal. They basically now basically produced genes that suppress cancer instead of increasing cancer, as we get older. So you will hear more about these soon.

Laura Frontiero, FNP-BC
Well, I wanna keep talking about 'em, are you game?

Kent Holtorf, M.D.
Oh yeah.

Laura Frontiero, FNP-BC
Okay, so I wanna know more about this guy, BPC-157. So I got this kind of booklet from you that had a whole bunch of studies and it blew my mind all the different uses, what this peptide can do. I specialize a lot in gut health and helping people detox. And it seems to me like this would be very helpful in a gut restoring protocol.

Kent Holtorf, M.D.
Oh, totally. So BBC-157 is probably the go-to peptide kind of for everything. And when I give talks, we have like hundreds of studies showing like helps traumatic brain injury, helps Alzheimer's, helps celiac disease, helps irritable bowel, helps leaky gut, helps liver cirrhosis helps basically nerve, I'll cut a sciatic nerve. If you don't give BPC, doesn't grow together. You have BPC grows together. Muscle, joint pain, aches, autoimmunity, basically everything. So it's like, I kinda don't like to bring it all up, 'cause it sounds like, what is this, like snake oil? But there are all these references and they've been being used for 30 plus years in Europe.

And so exceedingly safe and they've given it a thousand times a dose IV and they can't find a toxic dose. And like we'll be at a conference and someone you'll see 'em like they're complaining about their knee or something. Here, take these. Oh yeah, whatever next day they go, wait a minute. My knee doesn't hurt anymore. And/or whatever it is, it tends to work. Now for the gut, kind of the trio, BPC will lower all the inflammation, help heal, it's shown a lot of studies showing prevent side effects of let's say non-steroidals and it's kind of a homeopathic peptide in that, let's see you have hypertension. It brings it down. If your blood pressure's too low, it brings it up. If you clot too much, it brings it down. If you don't clot, it brings it up.

Laura Frontiero, FNP-BC
It sounds adaptogenic.

Kent Holtorf, M.D.
And then the TB-4, so Thymosin Beta-4 is the most abundant peptide from the thymus. But the problem is it's very long and it has basically a multi-domain peptide, and that has parts that do different things. And one part of the TB-4 stimulates mass cells, which doesn't mean it's good or bad, depends on the situation, but for a lot of our patients, we don't want more inflammation.

We don't want mass cell stimulation. But the fragment in the beginning, the only the four amino acids, the 43 amino acids, which wouldn't absorb anyways is basically the immune modulatory, it's the workhorse for the immune modulation. And it lowers, Human Turing Growth Factor beta, which causes fibrosis, which is a big problem. And with Sears and also, essentially a lot of lung diseases, congestive heart failure. And the TB-4 will FRAG, will selectively heal the tight junctions. And then you add KPV. So KPV is melanocyte-stimulating hormone, right? And a lot of it, not a lot, but some very knowledgeable lyme doctors use melanocyte-stimulating hormone in their lyme patients or PT-141, which is approved for libido in women, which I dunno if it works that great for women, for men, it works for erectile function.

Biggest side effect is nausea, but they'll use it for the anti-inflammatory. And also, if you look at Melanotan one and two, it's been out for a while, it's called the Barbie doll peptide because you lose weight, you get tan and increase libido. But then you get nausea with that. And you think getting tan is great, but as you get older, you get blotchy. But the KPV is the last three amino acids, it's about 10 times as potent, as I wanna say, stimulating hormone does not have any of the side effects of tanning, which cause blotchiness, nausea, hugely anti-inflammatory. And so that you had that into the gut and you basically, we had people with like, we had nine-year-old girl who were gonna get a colectomy because from Crohn's and they tried everything, and nothing worked. Within two weeks, she was having bloody stools and within two weeks it's like, Oh my God, she's so much better.

And we just give her some supplements and no, the mom, she wanted to start one thing at time, she started BPC, she's like, wait a minute. This is working like, okay, let's start dealing like, Oh my gosh, just change this kid's life. And it was funny because she would actually, Either we didn't know, it was friend of, one of the people worked at Integrated Peptides and they went to their house for dinner and they go, do you know this doctor, Haltorf? And he's like, where is he? Holtorf? Yeah, that's it. Do you know? Yeah, I work for him, so it was kind of cute, but she was gonna get a colectomy, get her colon taken out. And so many things weren't like pots and she give the peptides and we don't even think about it, really. MS, we reverse so many MS patients, ALS.

Laura Frontiero, FNP-BC
Which peptide are you using to reverse MS?

Kent Holtorf, M.D.
So you think about all the autoimmune neurodegenerative, it's all immune modulation. So again, you look at BPC to calm the TH2 and add the growth factors. The TB4-FRAG raises the TH1 and then the KPV does a number of other things, but lowers that overall inflammation. But then, there's Thymosin alpha one, which is approved in 22 countries for infections and cancer, but people were using it for COVID effectively and safely. So they banned it. So we came with the Thymogen Alpha-1. We did metabolomics testing to show that it worked, actually is even more potent, but so that's gonna raise that TH1 and again, then everything kind of follows through with that.

Laura Frontiero, FNP-BC
Wow, wow, can you talk a little bit since, this is so awesome to me. I love talking about this. Can you talk about Cerebral Pep?

Kent Holtorf, M.D.
CerebroPep, it's basically brain neurotropic factors and we've probably had more like amazing testimonial, reviews, people with neurogen, Alzheimer's, traumatic brain injury. I probably shouldn't say my girlfriend's son was just started just being just a jerk. His brothers were like, what's going on? And just kind of nasty. And I gave him the Cerebral Pep and then probably four days later, his brothers like, Oh my God, his old self is back, you know? And it basically reduces all that inflammation and kind of that brain on fire, you know? So it's been used for again, 30 years.

Laura Frontiero, FNP-BC
So bring us back now that we have a foundational knowledge of peptides and what they can do and what they can support in the body, bring it back around to mitochondria for us. So what are these things doing in the mitochondria realm? How are they supported?

Kent Holtorf, M.D.
So you, there are mitochondrial peptide, certainly like collins for MOTS-C, tons of trials going on for these things, by the way, SS-31, which it's essentially a intercellular mitochondrial antioxidant, very similar to my MitoQ, PQQ, just much stronger. But with the CerPep, we get people that had traumatic brain injury for 20 years, I get lost and you know, after two weeks, Oh my gosh, my life is back. I can have a normal life. I can converse that I couldn't before, that's just taking a supplement, you know? And so what we treat veterans for free, works great. All these things work great for post-traumatic stress syndrome, traumatic brain injury. If you look at post-traumatic stress, it is, if you look at their immune system, it's almost exactly the same as some with chronic lyme, same with autism and all the peptides work amazing for the autistic kids. Like we have a video of one autistic kid coming in and she say, his mother showed it. Here's him playing basketball, which the basketball just goes by, I mean, he doesn't look at it. Comes in just, Oh my God, they bring him just throw an F-Bombs, you can't get near him. And it was just, Oh my God, horrible dealing. Now he comes in and he goes, can I have a hug? And he's sarcastic, he gives himself a shot. And his mom sent over pictures of him playing basketball, doing gymnastics, doing flips. Like it's a whole different kid.

Laura Frontiero, FNP-BC
That's really incredible. It's really incredible. You know what? It comes to mind is that man has created interesting ways to harm us. And there's gotta be people on the other side creating interesting ways to get us out of it. Seems like that's what you've been doing.

Kent Holtorf, M.D.
Yeah, it is, you know? These things that, Hey, they're making money and you can't live without 'em, you know, like EMFs, like it's people get upset when I talk about being in that electric car that it's like basically sitting next to a high tension wire, you know? And a lot of people, turn your EMF, turn your WiFi off at night, find your sleep so much better. Your melatonin levels go up. It's basically inflaming your brain. And if you're prone to that, if you already have other reasons for inflamed brain, it's a problem. And there's no one thing, it's everything. We're not made to have all this stress. I remember when I was young, we didn't have computers, we'd mail a letter and wait two weeks for a response. Right now it's like, Oh, he's the person texting me back and all the social media and traffic. And so it's just, people are just overwhelmed and the body is

responding, and breaking down. So you gotta do things to increase your tolerance, to all these stressors.

Laura Frontiero, FNP-BC
I'm really, really excited that you are working in this space and that you're creating peptides formulations. And you have your Integrative Peptides company. If people wanna work with you or know more about what you offer, how can they get ahold of you, Kent?

Kent Holtorf, M.D.
Yeah, well, if you email me, I get about 800 emails a day. I got an assistant now, but.

Laura Frontiero, FNP-BC
She's lovely, she's lovely. You're assistant.

Kent Holtorf, M.D.
She's good, she puts up with me. And we're actually gonna start a training program. Finally, we've been asked over and over, and over, let's kinda work with other people, but that way we can keep price is very low, do a very comprehensive training program. We'll start with some webinars. We're gonna have a big conference in October and really go through and really show how to use these because it changed my life. I mean, I had congestive heart failure that the cardiologist said, maybe you can get 10% better in 10 years with intense cardiovascular rehab. I'm like, I'm gonna kill myself. I couldn't stand up straight. It would take me two hours to go up stairs and just went around the world, tried a lot of weird stuff. But a lot of stuff helped, ozone and plasmapheresis, things like that. But a lot of things helped, high dose T3, but I tried peptides. I didn't think anything of it. And then like four days later, I just said, Oh my God, I just walked up the stairs, standing up, you know? And then I was just like, before sweating, anxious, walking one mile an hour, trying to catch my plane, just you know? They've changed my life. And the people that use it have changed our practice. It's allowed us to treat the sickest patients much easier and much faster. So I actually have this probably on Friday coming out, the updated mold illness peptide protocol for the rapid treatment of Sears.

Laura Frontiero, FNP-BC
For the rapid treatment of what?

Kent Holtorf, M.D.
Sears, so mold illness. Which cuts out all this stuff, I mean, Schumacher's brilliant and all that. But all these binders, I was so tired of people coming in, binders for five years and they're like, I know I'm gonna get better. I'm like, Oh my God, we gotta fix this 'cause that's not the problem. You gotta fix the problem and he even talks about that it's the human transforming growth vector beta is the problem, but what does he do for it? He indirectly just tries to pull out all the toxins, but you can directly affect that. Plus if you have low TH1, you don't detox. So fix that first, then you can do that other stuff if you want, but this will give you a protocol to rapidly get better in months rather than years.

Laura Frontiero, FNP-BC
So you're gonna teach practitioners how to use the products. If you are practitioner and you wanna get an account and use Integrated Peptides, where do they do that?

Kent Holtorf, M.D.
Yeah, so just go to integratedpeptides.com and we got a whole new, slew up good people and you can call us, ask questions and that, and we also talk about peptides that we don't carry. We're very happy to do that or talk about anything for that matter or any case studies, I'll do that a lot. So we'll have some tough case and we'll do that. So we're gonna have that for the practitioners. We'll do, set lectures, but also a lot of question answers, a lot of case studies and actually get a very comprehensive program that you're not paying $2,500 every time you watch a lecture, you know?

Laura Frontiero, FNP-BC
Yeah, and then if you're a consumer, you're a patient and you wanna take these, can they buy directly from you or do they need to work with a clinician?

Kent Holtorf, M.D.
Yeah, well, we give the same lectures for patients we do for doctors, but we dumb it down for doctors. I'm kidding, sometimes you'll feel that way, but no. Yeah, you can buy, but you'll get it cheaper through your practitioner.

Laura Frontiero, FNP-BC
Okay, thank you so much, Kent. Any final words to share with our mitochondria crew?

Kent Holtorf, M.D.
No, I just wanted, I mean, I love the mitochondria. We didn't get to talk a lot directly about mitochondria because it is so I important and that the mitochondria, and I'm thinking of a graph that you can see, it's like here's mitochondrial function. And then, basically it's indirectly to health and aging, and everything. And so you boost, you fix the mitochondria, you'll fix your health, but you can't do it quite directly yet. Depends about the timing because you don't wanna make the body worse, but it's a major key that, you know, wait, who's the mitochondria specialist? It's not endocrinologists, it's not hematologists, they treat diabetes and they're metabolism doctors, they don't even talk about the mitochondria. So yeah, it's the exciting stuff is happening with integrated physicians like yourself and looking at, Hey, what's the next avenue to get my patients better instead of just basically, going and seeing every patient eight minutes, I can't say alone in eight minutes. And our system is okay if you break a leg or have something standard, but if you don't fit in a box, you're in trouble. So you better find a practitioner that can listen to you. And if a practitioner says, I don't know, great stick with them, they're usually very good because most doctors, the less they know, the more adamant they're right. And I used to think that, we get patients been sick for 20 years when seeing a doctor come to us, they get better send 'em back to their doctor. Think the doctor be happy. No, they're pissed. So it's a weird system, anyways. They're stuck in a bad system.

Laura Frontiero, FNP-BC
I love what you just said. You find a practitioner that says, I don't know, keep 'em. That's really good advice. I thought that's good advice. Well, thank you so much. I know we could do another interview and talk down a whole nother wormhole of mitochondria and energy.

Kent Holtorf, M.D.
I'm looking forward to watching your summit with all your great speakers. And so I think it's just such a key cornerstone of health, so nice job doing it and real respect everything you're doing. You're doing such a service to doctors and patients. So thank you.

Laura Frontiero, FNP-BC
Thank you. You take good care now, bye.

Kent Holtorf, M.D.
Thanks a lot.