

## Treatment Immune Dysregulation And Mitochondria With Peptides

**Nafysa Parpia, ND**  
with **Kent Holtorf, MD**



### **Nafysa Parpia, ND**

Welcome to this episode of the long haul chronic fatigue summit. I'm so happy to have with me today, my good friend and colleague Dr. Kent Holtorf. Welcome Kent, I'm so happy you're here.

### **Kent Holtorf, MD**

Thank you so much. It's a pleasure and an honor to be with you. And so many great summits and seminars and conferences and you're on the cutting edge. So my pleasure, hopefully I can add a little bit.

### **Nafysa Parpia, ND**

Thank you. You're on the cutting edge too. We've had so many great conversations over the years about patients and our work, our fields. So thank you. Will you start by telling our audience about yourself about myself?

### **Kent Holtorf, MD**

Well, I'm not that nice now that I always very standard position and you know, going through medical school and residency, like, you know, evidence based. I was very open space, I'm still very evidence based but it's ingrained nothing. Anything alternative means no evidence. And I got very sick and I went to the university doctors and they're like, oh you're distressed, I'm like no, I can't function, I can't talk to patients. And then so it just they couldn't do anything. And I'm like, I need to go to somewhere else. And so I kind of snuck off to alternative conferences and like, oh my God, these are more evidence based on what they're telling me. And I went to anesthesia because I could not talk to patients, they're asleep, right. And then all of a sudden a bunch of lectures, optimize my, you know hormones and immune system and basically mitochondrial boosting antiviral stuff like, oh my God, I'm a new person. So I got out of that when the family practice and started doing this type of medicine. And I found that so many people are sick or at

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least sub optimum feel as good as they can. And even just, I got really big and to teach straight T three that helped me so much.

And just I opened the thyroid optimization clinic and converted a family practice into a cash practice. It just helped so many people, but then I went through a stressful divorce and it was bed bound. So it shows that stress, there's also a huge component of it. So usually stress toxins chronic infections, there's that combo that causes chronic illness. And then so kind of I went to heart failure and my heart was quite gross and the cardiologist said, well this damage maybe you can get 10% better in 10 years with with rehab, I couldn't stand up, I couldn't walk upstairs and like, I'm gonna, you know, I'm gonna blow my head off, I'm not gonna go through this. So I went very slowly, one mile an hour bent over around the world looking for new treatments. Not a lot of a lot of things that helped Ozone Plasma phrases, peptides and and then I took a bunch of peptides and like three days later I'm like walked up the stairs and like wait a minute what I take, you know, I didn't expect anything. And then so when I came back and my heart failure was better with the cardiologist after a year. And he's like, that's interesting to me as if I didn't know. But anyway, so really brought these multi system therapies, you know, to to treat patients. So that's kind of what we do we treat, you know, like you do, you know, chronic lyme mast cell activation, chronic infections, mystery illnesses, neurodegenerative diseases that selectivity. I mean all the things that no one wants to treat and they, you know, just complex illness multi system illness. So that's gonna always specialize.

## **Nafysa Parpia, ND**

In this is what I love about you that that you're one of the few like us who's taking everything into account everything you just mentioned the infections, the toxins, mast cell immune dysregulation. And I love what you've done for the medical community regarding thyroid and regarding peptides. I mean it's been huge, huge.

## **Kent Holtorf, MD**

Thank you. Thank you.

## **Nafysa Parpia, ND**

So let's talk about persistent immune dysfunction, mitochondrial dysfunction immune dysregulation as it relates to Long Covid start there.

## **Kent Holtorf, MD**

Yeah. So you know, with Long Covid there's a lot of things that are happening, it's kind of like what's the cause of chronic line, you know and was a chronic Lyme it's just kind of like it's a lot of

things, not just line but and all these multi system illnesses chronic fatigue syndrome, fibromyalgia, you know, mast cell activation and but what we found at the core of all these now, it's not just the single thing, but a common denominator is immune dysfunction and also goes along with diseases of aging. And so it's getting the things that we do for these chronic illnesses, actually, things we do for anti aging. And what you'll see is like with aging, you're Thymus, involute. So it stops as soon as you're around 9, 10, it starts declining. And then it's really low, right around age 40 or so. And that's why age 45-50.

That's when you start getting all these diseases of aging and what it does if you look at the immune system of oversimplification like you have to because the menses so complex, but think of one side is the one and you put the rags in there and the two and the one basically is inter cellular immunity, get stuff inside the cell to get stuff outside the cell and like antibodies. And as you get older it goes like this also you have any stress toxins chronic infections, aging and it all starts doing this. So we we can, you know, test someone, let's say someone comes in with with, we don't even know well we'll look at their blood tests, we do about 40 tests just as a baseline And we can tell like if they have chronic lyme chronic fatigue syndrome and about how sick they are. About 70% accuracy. And will you look at that immune dysfunction and there's all the controversy how to test that. Look at cytokines, which we found doesn't work because the body's trying to do something with cytokines, but that's not what's happening. So we look at downstream markers like natural killer cell function, you can do number but it's not as good. For instance, chronic fatigue syndrome patients, 25% of low natural killer cell number, 75% low natural killer cell function.

And then the the two side, all of these are not the to you know their downstream markers is C. Four A and human growth factor beta, which is a very bad one because it causes fibrosis causes immune activation of coagulation. So you look at those things and you find that if you basically now also with the low the one, you can't fight interstellar infections, you can't it actually is needed for apoptosis. I don't want to get too far ahead. But the body to remain basically healthy. You need to get rid of cells as soon as they're not working well. They're supposed to go under basically programmed cell death. And oh my God, I want to kill myself. Yes you do. If you don't then it just builds up and then there's also in Unison essence, which is a very similar but as you get older the cells stop doing what they're supposed to be doing. But also in addition they start psa creating all this inflammation.

Now if you get rid of these senescent cells and also if you fix the apoptosis problem, like someone who has congestive heart failure, they're all of a sudden dramatically better type two diabetes dramatically better. And now covid will cause the body will lower that teach one raise

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that teach too. So you can't go under a apoptosis. So cells that are infected just stay there and they're infected and they're causing all this inflammation and you're trying to do all these things but with all these cells creating all this inflammation, it's a losing battle. And so you end up with long Covid, the immune dysfunction also causes mitochondrial dysfunction that causes immune activation of coagulation which not only causes you know strokes and heart attacks and you know, and you find these people you know big strokes age 30 Oh no, nothing to do with it. But it also lays down fibrous on the vessels and it does that it's it's good in the short term it's trying to block off all these infections and then in that layer it starts to creating anti microbial peptides. But if it doesn't kill it and get rid of that inflammation.

Then now there's this layer so hormones can't get through nutrients can't get through waste products can't get out an auction that usually takes two seconds to get themselves to take up the two minutes. So people they're basically the cells are starving for auction so they get a lot of like air hunger and you can treat that with Heparin Lovenox and some of the fiber enzymes and cytokines, lumber keens and everything is a vicious cycle. Then you also get pineal hypothalamic pituitary hormone dysfunction. So you end up with low hormones that you know in a corner and just look at let's say TSH. But the problem is because there's hypothalamic pituitary dysfunction. TSH is low but their thyroids really low adrenal dysfunction. And also you can't detox. And so also you can't convert the I. G. I. G. M. Antibodies which go first but they're not very powerful to I. G. G. Which basically activate complement and grab on and blow up the infection.

And there's so many repercussions to this immune dysfunction that if you fix that first and really concentrate on that. And I just did an e book on the peptide protocol for the rapid treatment of ceres. It's another multi system and it's really first like why the standard treatment now is to get rid of the toxins and the infection to fix the immune system. Why not fix the immune system first. Then you can get rid of the toxins. You know so it just kind of a different way of looking at things but it it all goes together and we're gonna show you get into a lot of different things but that's probably the number one key that we're finding it's really revolutionize my life. It saved my life. And we see it with so many patients doctors that you know we train and all that find it also changes their their practice. You're able to go from A. To B. Instead of like for like chronic line. We used to be you know let's just get as many antibiotics.

I was on 3.5 years of the highest dose antibiotics I would never give a patient and nothing worked. My natural killer cell function was zero and I was in like the I. C. U. But time was sepsis. Remember the nurse doing a change outside and they're like this is that aids pace that keeps turning up negative for HIV. You know like they're mad but that's what I learned. Well you're not

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going to be able to kill anything. The antibiotics don't kill it enough, you need your immune system to kill it.

## **Nafysa Parpia, ND**

This is what I've noticed in my practice. So I'd say prior to me starting to use peptides around, I mean a lot. Around three years ago I wanted to modulate the immune system in the ideal world. I wished I could I would try I would try my hardest with different herbs and it just wouldn't budge right? So then I was like alright detox I'm going to find ways by which to modulate the immune system have the th one th two shift balance treat mast cells and that helped and you know I could get someone better, a typical patient better in about three years. But then on board the peptides and now I can I can really point at the immune system modulated in ways that I couldn't before that makes everything go quicker. It's exactly what you say. Like if I come in I start with the peptides to moderate the immune system, I can start to kill infections quicker. Sometimes I don't even need to kill infections because the right they allow the immune system to do its job with the infections is amazing.

## **Kent Holtorf, MD**

Yeah. And all times we don't need antibiotics and if we do it's like three months, not three years. And also like the mast cell guys, they're the smartest nerds I've ever seen and that's a compliment and they're amazing. There's no every you know molecular you know, basically system and and but they're stuck on direct mass selling ambition but there's nothing wrong with the mast cells they're being stimulated. So look upstream and that's the thing and so like with pots like we don't even pay attention to because it just gets better when you fix the immune system, you know?

## **Nafysa Parpia, ND**

Yeah. I love it. Can you talk to us about the peptides that you like to use the most to begin.

## **Kent Holtorf, MD**

Yeah and so there's injectable and then there's we came out with oral ones but...

## **Nafysa Parpia, ND**

I'm gonna stop you for a second when you say we came out tell us about, when you say we tell us about integrated peptides.

## Kent Holtorf, MD

And so integrated peptides. We did have an injectable peptide company but we're with the regulations across state lines and all that stuff. But so we really did a lot of research on oral peptides. And the problem is a lot of people are taking peptides sublingual and think it absorbs not not the case. But so with the peptides were using and I know you guys are one of the few people that test things with meta below mix and transcript atomics. So like thymosin alpha one, it's probably the most popular peptide approved about 45 countries around the world for chronic infections and cancer th one booster. So very very effective. Well study came out showing that it was safe and effective for Covid. So they banned it because now they can't do the emergency because there was something that worked.

So they banned that. And so we looked for replacement and with through the meadow below mix transcript atomics and we tested a bunch of things that were orally available and we found that a combination of thymosin which is a very small peptide and then Vilon which we call immune peptide A two because that has a trademark on it. But that combination worked better looking at all the genes that it is basically affected. And so we're getting a lot of benefits from it. Also looking at the studies like Imogen reducing cancer. And Vilon has a lot of also pineal peptide action which is very anti aging. And they work really well together. But yeah so for immune modulation and then there's like thymosin beta four. So all these are peptides. Thymosin beta four is 43 amino acids. But it's actually multi peptide has different domains that do different things. And the problem with TB four it has a domain that stimulates math cells which isn't bad in a healthy person that you want to heal and say a wound or something like that. But in our patients who are already activated we didn't want that in there.

## Nafysa Parpia, ND

If I give them K. P. V. First or first they're happy with the T. Before. There's no problem.

## Kent Holtorf, MD

I totally agree because K. P. V. Which is the end terminal of the alpha hormone probably the best thing for mass cells. Anti inflammatory. And it's also hugely antimicrobial viruses. Indeed parasites and that really works. I like that combination and but we took the first section of it that is kind of the workforce for the immune modulation and it also directly inhibits human transforming growth factor beta. And that's something that people want to check because it causes so many problems it causes fibrosis and that's what line was so high and cause fibrosis of my heart. You get fibrosis of the lungs of so many kidney, it's actually totally proportional to chronic kidney disease and you lower that. And people's you know chronic kidney disease gets better. But so it's the T. V. Four frag active frag and it's orally active and we've we've checked that.

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And so like the most of our peptide or immune modulatory and and do particular things. So once you fix that like you can start with that and it's gonna fix a number of the different things but you may have to add wait a minute we need more you know on fund let's say mitochondria, mitochondria skeptics or brain where there's also cerebral license which has been around for 43 years and it's been shown safe and effective for dementia.

And you know basically Alzheimer's and they basically banned it here you know and so but it is orally active. And with the study looked at taking it orally they could do E. G. Changes in like an hour, you can see that that at work we've had so many testimonials of people like post traumatic stress and traumatic brain injury where they're like oh my gosh like I am so much better you know and I've been to so many doctors in eight years and or even anything from, I probably shouldn't say this, but my stepson oldest one, he was becoming kind of a jerk or like his brother is like, I don't know what's wrong with him. He's, you know, he was anxious and I think he has line but he won't test it. And so we gave him the cerebral is and his brother is like, oh my God, he's back to himself, you know, and there's so many things, so there's so many peptides that are there, they're kind of specific to the different organ systems.

## **Nafysa Parpia, ND**

Tell us about the cerebral pep. Is it similar to the super license?

## **Kent Holtorf, MD**

Yeah. So it's essentially oral cerebrolysin but they filter it to have the small molecular weight hepatitis that they orally absorb and and we find probably about four capsules a day. And we see that we probably have more like heart wrenching testimonials from that than we do from like the other ones like, you know, BBC. So many people BBC 1 57 you know, it's anti inflammatory. You go through the studies that works for everything from gut to brain for a mass to joins to, you know, kind of everything. And people like what is this snake oil? But the studies are there right?

## **Nafysa Parpia, ND**

So now tell us about the mitochondrial boosters. Actually, I have a different question for you can, my mind is going a mile, 100 miles an hour to right now as we're talking when when I've given people for example see link or C. Max the for audiences the nasal sprays that can help with anxiety or brain fog. I found that if the sinus infections aren't killed yet those aren't gonna work very well. But so what you're saying is that you can give cerebral cerebral even prior to infections being killed and you're still gonna see benefit.

## Kent Holtorf, MD

Yeah. And the reason is is that it also suppresses mast cells and that brain on fire. So these patients with these chronic infections they have you know all this inflammation in their brain and their and their you know sleep center. And we're also like delta sleep inducing peptide where it's not a sleep peptide but it reduces the inflammation in the sleep center. But yeah so you you want to get rid of the effects that's called what's causing the inflammation. But you can also reduce the inflammation where see Lincoln C. Max. C max is kind of more activating and helps with like depression and more of a boosting C length is a little more calming and helps you deal with stress. But if you have a lot of brain inflammation they don't work as well.

And then you can you know there's like antimicrobial peptide L. L. 37 which we tend to use later because if you use too much you can get you know a lot of inflammation but interesting with covid and long covid and also our S. D. Oral L. L. 37 was shown to be very beneficial. And it's that I can't guarantee that L. O. 37 actually absorbs overly. But you know it basically was shown to be very beneficial. So we like adding it you wanna that's one of the few you want to start low. And that's when I first started. There were no studies on dosing. Right? And so I said I'll do a quarter cc. Oh my God I was gonna jump out of my skin and I had to work. I see patients and I was like taking all these things. But it's also like you look at studies on covid you know a lot of obviously pulmonary issues. Someone looked at the lungs the amount of thymosin beta four in the lungs. It was zero in covid patients. So they had this huge immune dysfunction especially in the lungs and you know increased fibrosis and that so it kind of is very telling.

## Nafysa Parpia, ND

So are you able to come out with an oral I. I. 37?

## Kent Holtorf, MD

We haven't because it is a little longer and it's not likely but we're actually coming out with a super lipo soma most lipo soma meds they take fossil polling and they're or less and shake it up and they called liposomes Not the case. So we kind of went to the dark side, the big pharma and looked at the liposomes company that they guarantee liposomes that are small and stable for two years. And so we can actually put a lot bigger peptides in there. So we're gonna be able to expand the repertoire into oral peptides. And they're even doing, you know, liposomal injections because you need much lower doses and they get to their target much quicker because even when you inject they get broken down in the serum, right? So this protects them from the gut enzymes and also from the vascular enzyme. So we're really excited about that.

## **Nafysa Parpia, ND**

And yeah, what are your favorite ones for sleep?

## **Kent Holtorf, MD**

For sleep? It's a little combination of you get the delta sleep inducing peptide. Again, it's not gonna put you to sleep, takes about two weeks to work lowers inflammation. That along with epa talent, which is the pineal peptide also lowers inflammation and also epithalon pretty amazing. It will like reset. You're like, let's say your thyroid is low and the lionesses are screwed up. So you're making two in traverse city three. It will fix that in one study. They took out the pituitary in chickens this time using these rats. But and they gave them epithalon and also pineallan works? And it showed two to normalize the thyroid levels without a pituitary. So how is that working. But if you want anyone anti aging hormone that you know peptide that everyone should be on epithalon pioneer leon. Then you add that to a thymosin and your your biologic age. You know, after a couple of months it's gonna be much lower.

## **Nafysa Parpia, ND**

How exciting. It's a big deal. No wonder patients feel better so much better when we give them these things. I love that you're that you're pulling out the research here because a lot of people, they might be afraid to use the peptides because Their newer right.

## **Kent Holtorf, MD**

I mean we're actually not newer like 40 years old, a lot of them. But even like you know human studies, a lot of our animal studies. But human studies with they gave the Taliban and type on people older than 65 that had significant cardiovascular disease fought them for 15 years. They only gave him six doses. And for 10 years. And they found that the ones that got the normal treatments there are normal heart treatments from their cardiologists, their cardiovascular basically reserve and their function decline. The ones that got the talent in the peptide. It got better. Not only that they had dramatically less cancer, less cold and lose less morbidity, higher quality of life and all those things. Just six doses. And then they had one that they gave higher doses to and they had it was like 1/4 the amount of cancers and dramatically less mortality. And we're bidding my life was saved by the stuff.

So I need to get back you know and and so you know and we're treating veterans for free. Do we tell you this story? But yeah so we are first that was a combat controller, Special forces and he they found him face down basically no pulse. He they put him in an induced coma. He had even before that severe ptsD couldn't traumatic brain injury, couldn't read, he had Caledonia where you can't even touch his skin, it just hurt so much very nonfunctional and functional. He went

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you know, heart failure, kidney failure went in and out of the V. A. For like forward to six years neurologist everyone no improvement. Somehow he ended up at our at our facility as our first patient. And within the first visit we got rid of the cell Virginia. And by the second visit he could read a whole book, he could basically with his foot he couldn't like move his foot and that was totally fine. He had basically no anxiety.

All his ptsD depression was gone. He went on this rigorous camping two week camping and being special forces when they say camping it's like no sleeping bag to sleep on a rock, you know. And so we totally reverted. And then some producer or a director heard about it. So we need to do a documentary on this and then he got funding and then distribution. Which is key on Hulu and amazon prime. So and they agreed to do a 12 part with the use of peptides that you got this veteran back. So yeah, it was mainly peptides but also stem cells. Ozone. I mean we did a lot of stuff very quickly, but I think our with our peptides were getting very comfortable them. They gave them, you know, 12-15 peptides in the first visit, you know? And he did very well, you know, he couldn't sleep so he could sleep and it was just a transformation. You know.

## **Nafysa Parpia, ND**

What a beautiful story.

## **Kent Holtorf, MD**

Yeah. Yeah. So so we'll see how this goes. But you know the vet just get terrible care. It's it's crazy.

## **Nafysa Parpia, ND**

Yeah. I'm glad that they're coming to you. Do you have a lot of them coming to you now after this?

## **Kent Holtorf, MD**

Well, yeah, so there's a waiting list and I'm trying to get some funding because I'm treatment for free and it's in doing all these and I'm also trying to show like doing, you know, specialty testing where I know what's wrong. I really don't need to the test. But I got to show them and got to show you know the public so I'm like help give me some funding. So if anyone wants to donate my better medicine dot com. Yeah.

## **Nafysa Parpia, ND**

That's great. That's great. Thank you for doing that work.

## Kent Holtorf, MD

Yeah it's fun. Yeah.

## Nafysa Parpia, ND

Tell us about the mitochondrial boosters. So we've brought the maybe start to kill some bugs, done some detox at the same time to repair the mitochondria.

## Kent Holtorf, MD

Yeah. So when you actually modulate the immune system, the mitochondria often get better. And even like you know BBC and things can stabilize the mitochondria. But if especially if covid patients they all have mitochondrial function long covid as mitochondrial function. And think about it. The cells just don't have any energy. It's just kind of like brain can't function. The muscles can't function, they're sore. And then if again with the covid is shown to prevent autophagy where the cell death and causes a menos in essence where kind of the same thing where the cells should be eliminated but they get resistant to autophagy and there's certain things that you can do. So what happens is the mitochondria and this is like the cell danger response, right? And I know Eric and you've been very you know big in that whole thing which is totally true and it was revolutionary thinking and but it is one part of it, you know?

And so the mitochondria instead of the cell. If the mitochondria turn into instead of making energy they make all this reactive oxygen species. And whether trying to kill an infection and that also recruits other cells to be senescent And again with someone with like diabetes or heart feel they could have half their hardest senescent cells. So it's bad enough they're not doing anything but they're causing more problems. And so there's ways to selectively get rid of those and whether it's there's the stabbing ibb and setting and you know this permitting. And a lot of a lot of things are coming out to allow that to happen. And there's fox for D. Ri which has more to do. It's hard to get. And it's not cheap but that's that's more selective and we're working on the whole program with all that. But if you can get rid of those cells all of a sudden the inflammation drops and you kill off those mitochondria are terrible.

But you can also have mitochondria that just aren't working very well. And so you know people like you know cokie tan da da da they're not really they can help. And there's a you know P. Q. Q. My Q. But a lot of people like more Mott C. Which is an injectable and will stimulate a lot of people feel much much better with it also works for weight loss which everyone likes now. But if you have a bunch of senescent cells and you give that because the mitochondria are screwed up and you still get the mitochondria make more inflammation. So if they feel worse now think about you know analytics which kills the senescent cells because you have this the mitochondria

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aren't just dysfunctional they're shot. So you need me to get rid of them. And then there's like five amino one Mq. Which essentially brings in causes more N. A. D. In the cells. And interestingly I didn't expect this. We had one of our doctors kids had O. C. D. Very high achieving and you know university and cheerleader all this stuff but very O. C. D. And pulling out all our eyebrows and they went through so many treatments biofeedback and medications. Nothing worked. And we gave her that within two days she stopped pulling out her eyebrows.

## **Nafysa Parpia, ND**

Can you think of pans right kids with pans?

## **Kent Holtorf, MD**

Yeah yeah and and I think Pans is so under diagnosed and we often don't do the tests for it. We just kind of assumed they have it but you know so how like autoimmune disease it's like M. S. Okay yeah we'll fix it you know and you know and with lime you see you know I remember I had like nine different autoimmune diseases where they kind of come and go oh your lupus or say oh you're pretty lupus. Anti fossil lipid syndrome you'll get mitochondrial antibodies or another thing with kids is if you have an obese kid their likelihood of having hashimoto's is very high and in in actually and it drives me crazy that their TSH can be 10 and the pediatrician doesn't treat it. And he says if they lose the weight though that will go away which is somewhat true but they're not gonna lose the weight with low thyroid and low mitochondria. They also have a very high incidence of mitochondrial antibodies.

And and hypothalamic and pituitary antibodies which actually cause an increase in the type two D. Idleness which increases the T. Three in the hypothalamus and pituitary. So it lowers the TSH so they don't look like they have that little thyroid but it's very low And so I mean there's so many things and you have an obese kid, what's the chance is going to be obese adult and it's gonna be huge. And then you know other things like with the Mitochondria SS 31 which is it's more of an antioxidant and kind of protects the Mitochondria. And so you'll help it to be not go into this cell danger response and immune us in essence. And then there's human in which is then human and like peptides which are smaller but they called it human in because Alzheimer's patients that took it became human again. And so mitochondrial dysfunction has so much to do with almost every chronic illness especially neurodegenerative diseases that and also you know, these protein misfolding prion disease which is like mad cow but also you know Parkinson's, Alzheimer's they all have this misfolding which may be going in with with Covid and it could be really bad.

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**Nafysa Parpia, ND**

Right? Dr. Pretorius is looking at that.

**Kent Holtorf, MD**

Yeah. And so we had our audio visual guy end up with idiopathic prion disease right? And so I started researching I loved this man he was awesome. And so I put the other program that hey this could do something and I called the like it drives me crazy like all these non profit like the you know prion disease society. I'm telling them this and that and they're like what pharmacy company with him Like I'm not oh by like you know and but I'm like look at this study that. So I go to his house and he's on his deathbed and it took so long to get the diagnosis crazy. But so I start giving him these I. V. S. And then his but his sister says are you experimenting on him? And I'm like well there's nothing approved for it and he's not a lab rat. And so I'm like oh my god I can't do this. Like she didn't give he's basically denying you know informed consent you know so we couldn't do and I still feel guilty about that. But there I think there should be some breakthrough but I think there's so little research on it and it's as purposeful as they go along with you know but it's a major problem because it's not just mad cow, it's all these other nerd general diseases.

And so what happens is if there's a protein misfolding and what they have found that like with the vaccine especially they altered it so that they changed the base pairs so that the rhinestones would basically transcribe it very quickly and it would take precedence over everything else. But when you do that knows a lot of ares and if it gets an air where now it doesn't fold like a three dimensional way correctly. And it's very interesting if you have a misfolded prion, it then causes normal proteins to misfold. And that's where everything goes south. And there's a lot of reports that That people haven't heard of and people getting these prion diseases that are very quickly activating and I hope we don't see a lot more of those. But it's scary some people are predicting in 10 years that we're gonna get a lot of these problems.

**Nafysa Parpia, ND**

We need to work to prevent them now.

**Kent Holtorf, MD**

Yeah.

**Nafysa Parpia, ND**

I think with the immune modulatory treatments we have it's possible we don't have the research on it yet.

## Kent Holtorf, MD

And there's also things you can do to stabilize the crimes. So they don't they'll stabilize them so they don't affect the other pry ons that but you have to kind of recognize it early maybe like no one's tried it you know?

## Nafysa Parpia, ND

Yeah.

## Kent Holtorf, MD

No it's it's very strange. Yeah and I think it's it's really times are changing and I think you know people weren't have this multi system illness 20 years ago and now it's like I can't go to a party without a lab slip because everyone's like oh my God I'm so sick and my doctor you know and and we didn't have it and I think it's because we're being bombarded by so many toxins and you know even from E. M. F. S. And pesticides plastic you know why is glyphosate still legal? But just you know remember I went to an environmental conference and I left I'm pretty a G. D. So it I went to the bar whatever and I'm reading USA today and not on the outside cover but inside cover it was a killer whale in Antarctica that was dead on an iceberg. They did a blubber biopsy and it died of PCBs. A massive overdose of PCBs which has been banned for 40, 60 years. Yeah.

## Nafysa Parpia, ND

You know I really agree with you about the environmental toxins causing immune dysregulation and there is research that shows us that.

## Kent Holtorf, MD

Yeah and then you add stress to that and I think our stress levels. I mean I was growing up we didn't have a computer and we send a letter and wait a week and wait for it to come back and then you know now it's like oh my God we got you know before it was faxes which is better. But now it's you know basically text my God they're not getting back to me you know traffic. We got you know everything's like multitasking were not made for that. And so you can find that you get immune dysfunction and you've got a chronic infection reactivating infection and now it's a vicious cycle.

## Nafysa Parpia, ND

Exactly that. And so we have to deal with each of these layer by layer. Starting with the immune system. Back to the beginning of our conversation actually starting with an immune and nervous system regulation.

## Kent Holtorf, MD

Yeah. Yeah.

## Nafysa Parpia, ND

Then we hunt for toxins and infections.

## Kent Holtorf, MD

Yeah. And then with you know we kind of with with long covid that you know especially with You know you can get it from any from either you know the natural infection or or the vaccine. But with the vaccine you have about 300 times the amount of spike protein. And it is shown to integrate in the DNA. So you don't know when it's gonna stop making this stuff. And and so they're finding a lot of studies are at two months but some studies at six months you still have basically spike protein you know in the tissues. Sometimes it's a fragment which is still causing you know all this problem. And so some of the treatments are to block that spike protein from entering the cell and you know you know giving ivermectin I mean N. A C. Is a lot of stuff but ivermectin you need to get very high doses, you know like 28 mg a week for a month is what seemed to work which but but everybody is very safe but I think people use to lower doses also vitamin C.

But you need very high doses you know, glutathione, NAC. The polyphenols like you know acumen by setting but you do need high doses of these things and a lot of and they also have other thing, you know, everything kind of modeling the immune system proving mitochondrial blocking the, you know, spike protein and the ace inhibitor then you with with the firm and enzyme also is what they stuck in there. So that it would be basically cleave very quickly and be able to infect more. And there's kind of you know, other almost the same things will stop that as well so that they have multiple effects. But there's a lot of things that that work, you know, and but you know what, that's when they had their patients. Well, 1000 things that can work but they can't give you 1000 times.

## Nafysa Parpia, ND

Right, we have to tailor it to the person, this is why we need to do that thorough intake and all those lab, genes, even good genetic testing understand.

## Kent Holtorf, MD

Yeah and I do like the fact that the testing is getting more sophisticated downside is cost. But it's tell people, you know, instead of doing a little bit lab here a little, but I wanted to know

everything up front. You know that way you don't go down different, different roads that may not be beneficial.

## **Nafysa Parpia, ND**

Right. Right. On that note, I think what we're seeing here, what you're saying here is that there's a lot of hope.

## **Kent Holtorf, MD**

Oh yeah. Yeah. Yeah. With Long Covid, I mean we really think two weeks is kind of the average of benefit. We like excellence and stem cells like with or say zombie where you can't smell like we'll do peptide and excess nasal sprays and usually within hours it's improving.

## **Nafysa Parpia, ND**

Fantastic. See we have it, we have the medicine. It's just not just not widely out there, but we have it, we see it work.

## **Kent Holtorf, MD**

Yeah. And again, I'm gonna head up and do some platinum freezes at your place because you know, it's eliminating all of these. It's a limiting spike protein. It's eliminating all these inflammatory cytokines, it's eliminating all these toxins, heavy metals and in filtering all those out. So it's ideal for even a healthy person. But especially if you have some chronic illness. And you know, people feel better very quickly and I think it's something that should be kind of mandatory for everyone in this environment that we live, especially if you're sick. It's a good way. And I've never seen anyone feel worse with it. Which in a lot of treatments like antibiotics. Oh, you feel worse? Okay, good. It's working right?

## **Nafysa Parpia, ND**

That's old school thought. Right? Sometimes I have patients that say wait, aren't I supposed to feel worse? That means it's working. No, it means you're getting more inflamed.

## **Kent Holtorf, MD**

Yeah. Although I do toxin tests on everything and I just keep going up until I have something bad happens. Always give us a couple times. But and then I know we're kind of limited but yeah, is awesome and but it's funny, I went to the hospital and I said, how much for positive reasons to go? I don't know, we'll give you 80% off and I'm like, well, how much is that? And so she goes in the background but then comes back and says, well it's \$38,000. And I said, okay, 80% off of that because no, that's with the 80% of he's not cheap. So yeah, compared to what do you guys turn,

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**Nafysa Parpia, ND**

You know, I don't know, we'll talk to.

**Kent Holtorf, MD**

Yeah. But so you guys are just getting it going, which is awesome. And but yeah, sure. A fraction of that.

**Nafysa Parpia, ND**

Yeah. Yeah. Yeah. I don't I don't know yet. It's just getting started.

**Kent Holtorf, MD**

Well, let me know. I'm flying up.

**Nafysa Parpia, ND**

Perfect. Thank you so much. This has been a great interview.

**Kent Holtorf, MD**

You're doing a wonderful service for so many people, and I just admire you and Eric and what you guys do and happy to help any way I can. And thank you. Thank you for having me.

**Nafysa Parpia, ND**

Thank you. Likewise. Likewise, we admire you. We love you, love your work.