Dr. Heather Sandison, ND - Peptides and Neurohacking Transcript

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Introduction and Speaker Background

They start to can hold tours for another episode of the Peptide Summit. Today, we are fortunate to have doctor Heather Sanderson, with us, and she's going to be talking about integrating peptides for optimal brain optimization, or for comprehensive brain optimization.

That not a double optimization there, but, very excited to speak with her. She's well known. So there are many conference is and she trains doctors and speaks about, our unique topics.

And we'll get in. I'm sure we're gonna learn a lot about how to fix some of the toughest patients, especially the neurodegenerative and cognitive, problems that are so prevalent and so poorly treated today.

She's a founder and the medical director of North County Natural Medicine and, founder of, Brahma, which is a residential, facility, which I imagine takes up a lot of time and is, tough to run specializes in.

And again, neurocognitive medicine and neuro hacking. I love that term. She has brain to specifically address imbalances that affect the brain, including autism, ADHD, ADHD, depression, anxiety, and Alzheimer's.

She is trained with some of the top, top names in the country, around the world. Dale. Benderson. Doctor Neil Nathan, doctor Bill Walsh, and Richie Shoemaker.

He's a little tough to work with. In addition to regular attending and speaking, integrative medicine conferences, across the country and throughout the year, referring to his family centers around taking deep dives into treating the cause of the imbalance in the body, including toxic burden, nutrient balance, stress management, structural integration, infection resolutions, or really looks at the whole body, which I think is key with so many illnesses now, she believes power the body, heal itself.

Doctor Sanderson's passion, to guide and support patients as they co-create strong foundations for optimal health through sustainable lifestyle changes and the best medical interventions to support balance of the body.

Yeah. I think the patient has to be an active participant or it just doesn't work. She's dedicated to learning, all there is to know about the brain health and considers her amazing, patients and, and CNM, and residents at, the Aurora, residential center.

Some are very best teachers. Very interesting. Sounds very humble. And, you can learn a lot if you listen to your patients. She's been awarded a research grant, which are very tough to get.

Study the effects of individual interventions and patients struggling with cognitive decline. At her center. She's earned her naturopathy, doctorate at the Stear in Seattle.

And she currently serves, the medical visible, neuro hacker collective collective, and is a regular host of the Collective Insights podcast. So, doctor Heather, thank you so much for for being on.

I'm looking forward to hearing all the things you're doing for some of these toughest patients with, you know, neuro cognitive degeneration and all the other cognitive dysfunction, which seems like so many people are diagnosed with nowadays, and so many people have a problem.

Let me ask you, what do you think is the cause of the rise of all these problems that I don't think we had 20, 30 years ago? Yeah. Thanks so much for having me.

First of all, I, you know, it's such a fascinating conversation, right? Is a lot of people suggest that in the case of

autism or Alzheimer's, that maybe it's that we have improved diagnoses, right?

That we see more doctors, we have more doctors, that there's more people in the world. So of course there's going to be more patients. However, I would disagree with that.

I don't think that fully explains the rise in incidence. So the number of patients per, say, 100, in the population that are being diagnosed with diseases, these long term chronic neurodegenerative diseases.

And I, I believe that toxicity plays a huge role. Now I actually you listed as you read my bio who has time for all that.

Why Neurodegenerative Disease Is Rising

But you listed the five things that basically I believe contribute that can be causal really, not just contribute, but can be actually causal when it comes to complex chronic disease.

And that's toxicity, which has definitely exponentially risen over the course of the last generation or so. The the last 80 years. So certainly hitting our baby boomers very hard.

The other thing is nutrient balance, right? I remember the 80s when we were told that fats were bad. Well, our brains need fats. They use fats actually most efficiently for fuel.

So things like ketones. We found that one of the best diets for a neurodegenerative brain is a ketogenic diet, because the brain so efficiently uses ketones for fuel.

And if you get rid of the detriment of high levels of both insulin and blood sugar in the brain. So toxins, nutrient balance, structural integrity, right?

You've got to have the way a chiropractor would think about it. You've got to have blood flowing to your brain. You've got to have the toxins able to get out through the venous system, through the lymphatic system.

We've learned more and more over the last few years about how that that lymphatic system in the brain is so integral, and how a lot of that happens at night.

If we're not flushing the system, then those toxins can build up and certainly cause that degeneration at the cellular level. So that structural integrity of of the head and neck particularly, also, you know, if you've been hit over the head with a baseball bat, clearly traumatic brain injuries can cause neurodegeneration.

We see that and then, stress. We, that there's very clear literature that when we're under stress, we don't remember as much. It's harder to make those actions and then infections.

There's a very, I actually don't even know if someone has connected this as a cause, but certainly correlated. We see in an autopsy reports, the brains of people with these degenerative diseases, whether they're Lewy body or Alzheimer's or Parkinson's.

There are viruses and bacteria in these, these tangles, in the neurofibrillary tangles or in these plaques in what you can see histologically under a microscope.

You can find some of these bugs in there. And so it suggests that there's a contributing factor when it comes to infections. And dental infections in particular can be a trigger there.

So I believe that the reason there's a higher incidence is because all of these things are more off balance. We're more stressed. We don't eat as well.

We don't exercise. So I structure is off. We spend all day sitting at computers or sitting in the car commuting. And then, there's more toxins in the environment.

So that is what I would say is driving the rise in incidence, I think I completely agree. And, well, what do you think of McDonald's work where you found basically all of you said at Harvard Brain Bank and biopsied all Alzheimer's patients and found line, you know, and all of them.

And, you know, I'm just thinking that everything's infectious. But I also think, let's say, you know, we call Lyme disease or, you know, which I think is a lot of things, but I think if someone just says Lyme, they're gonna be fine.

It's all these other things, you know? And I had it myself and emotional stress went through, especially divorce just killed me. And when I lecture, I show how stress over things that lowers immunity.

No, it modulates it lowers the good parts, but causes all this inflammation. And, and I had it since I was born, and I have the worst memory of anyone I can remember medical stuff, but that's about it.

But. And, and just not y'all growing up at one people was bigger and all this stuff. But then just two weeks ago, I broke my nose. Concussion for our army.

That, time and, yeah, all the all the toxins. Like, I'm scared to take an Alzheimer's test because I don't know if I pass, you know? So, so generally, do you, What?

Where do you start? Let's say 80. So you also do, like, 80 patients? Well, let's just start with there like 80 ADHD. Someone has a mental kind of the things that come up as, as children are growing.

So what I, what I do, is it really a comprehensive approach? I, I like to play in this area of cause I know that a lot of people will say, well, why don't you just add more magnesium or why not put them on on this or try that, and instead of doing this sort of better world efficiency and Adderall deficiency rate, and instead of doing this sort of let's pick from the tree and choose these things that are most interesting this week.

I really like to get the data and and patients need to be on board. I'm a data person. It's it's part of who I am as a provider. And so I really encourage patients like let's, let's fill in the model.

Let's figure out how many toxins you have. Are they there. And kids unfortunately can be exposed to toxins. It's an umbilical cord blood right. So they can get it from mom, particularly firstborn. Right.

Mom is downloading a lot of her toxins through breast milk or through that cord blood. And so, it's not like kids come out totally a blank slate when it comes to toxic burden.

So we do look in kids. Of course, we're careful about how we pull that out so that we don't cause more cellular damage than we're trying to to prevent or restore.

But I, I do, I just go straight to the model. Right? All of these things are potentially causal. Let's measure them. Let's figure out which are the ones contributing to the imbalance in your system.

And then let's fix it. Let's let's create balance there so that every cell, every mitochondria, every piece in your body can function more efficiently and better and create more balance.

And this should resolve itself, I believe, with all of my being, my my religion, my truth with a capital T is that the body is divinely designed to heal itself.

And what we need to do is get the gunk out of the way. That's that's screwing that up. And we need to add good nutrients and and we need to add meditation and, you know, these stress management strategies because we can't eliminate eliminate that completely.

And also some stress is good for us. It's about balance. Yeah. That really I start we have I use an hour and a half to two hours for initial consults because I treat complex medicine.

Usually there's quite a bit of history to take. And then we are going to plug people into this model, and I don't want to leave any of it out because it can all be contributing.

So you're probably researching like like me, it's it's like, I everyone's like, got a problem. You just I keep breathing more. I'm going to find that. Yeah.

Like basically the, the golden, you know, trick. You just. Yeah. You know and so like, well, let me ask you what is your has been like for, the tests you like for measuring toxins or heavy metals.

And one of the treatments. So I follow Neil. Nathan, pretty closely when it comes to mycotoxins, illness, mold and mycotoxins, water damage, buildings.

And I, you know, we see great results with that. And it is a new science, so we're constantly learning more.

Testing for Toxins and Heavy Metals

I really appreciate the support of my, my peers, my colleagues, where we're we're always, you know, we're all collecting data, we're all getting information, we're all collecting experience.

And we share that regularly. That's nice. Yeah. With Doctor Nathan really spearheading that. So that makes me, that makes me feel much more confident in the process.

Especially because it can be challenging. It can take a long time, but I see people get better. So the testing that I'm doing there now is through real time.

We do recommend some sort of provocation. So either a hot shower and sweating the night before and then collecting the first morning void of urine. It's a urinary.

My architects make a toxin test, so, either heat or glutathione known to provoke that. We do feel like we get we get results that more match with the patient's experience and potential exposure is when we do that.

I know there is argument in the field about whether or not your you should do that, but I, I do support that. And then for heavy metals right now I've shifted to using Chris Shade's work almost exclusively the Quicksilver work.

So I do like his hands down. The mercury testing through Quicksilver is the best I believe, out there. And then, sometimes I'll use some doctor's data.

Provokes urine testing, particularly if there's lead showing up. I think using some EDTA as a provocation agent can be helpful. And then for the chemical toxins, I use great planes.

They have a good toxin panel. It includes glyphosate. And typically with that, you know, some people have 1 or 2 of those elevated. But I'm looking for patterns like is everything elevated or is there one thing that maybe is pointing in the direction of I had a patient, for instance.

There's always good stories around this, but I had a patient who, you know, she amazing woman. She grew a lot of her own food, definitely bought everything organic, was very conscious of like clean cleaning products and not having toxins in her home.

And eating right. I did everything right. Right? Yeah. And then we ran this testing and all of her organophosphates. The glyphosate was one of the higher ones I'd ever seen.

And it turns out she did. Her hobby was Japanese flower reading, ikebana. And so she was doing this, like this, and kind of a human. She was doing this to donate the flower arrangements to, like, low income families and family members in the hospital.

She it just is an incredible human being. But we didn't I would never have thought to ask her like, it's ikebana, your hobby. She was up to her elbows like two days a week.

And the worst pesticides and herbicides, like the stuff that they won't even spray on, food that people would consume, right? They leave the the the worst ones to the flowers.

So she was getting a ton, you know that. And yeah, we never would have known if we hadn't run this test. So that great planes test has tipped me off. It's sitting in my bathroom waiting eight months to it.

Yeah, it doesn't always. You know, we don't always get a slam dunk like that. Like, okay, you've got a you've got to wear gloves or or change hobbies.

But we, we often do run into things where we can mitigate that exposure or change the exposure and bring that down generally is that the main thing is there any chelating type thing or to increase detox?

You know, some people in terms of glyphosate, some people do talk about there being specific things like glycine, that can help to pull that out a little quicker, certainly include a thiamin.

I my approach is very natural empathic when when it comes to toxicity, I really like to open up the among trees or that's a fancy word we use for the organs of elimination. So get people breathing.

We forget that the lungs are an organ of detox, get people sweating. A lot of us have spent a lot of our lives, you know, in 73 degree air conditioned rooms and cars.

And we don't we haven't been sweating regularly. And so we've sort of lost that reflex plus or putting on deodorants and things like that. So getting people breathing, getting them sweating, drinking more water, making sure there's regular daily bowel movements.

I can't tell you how many times I've had a patient say, oh yeah, I have a regular bowel movement. I'm like, okay, well how often? Daily? Oh no, just think once a week.

But that's and they consider that normal. That's not normal. It's not. You're going to build up toxicity. Unfortunately we live in a world where there are there is a relatively high toxic burden on the planet right now.

And so we need to make sure that we have these organs open. So what do we say? I think kidneys, liver, lymph, bowels and lungs, we need to open all of that.

And I think of it as like the river mouth. So we want to have that river mouth open before we start adding things like glutathione or other fast. Choline is another one that we might use to get the cells mobilizing toxins that are stored there.

But before we jump to that, we've got to make sure those organs of elimination are open. Yeah. And if the cells don't have energy, we can't get rid of these heavy metals, you know, nicely.

Yeah, yeah. And this is a vicious cycle. Right. It's really is so and sometimes are starting in multiple places. But, you know this is a really great place for, for peptides.

I actually really stress that people should be identifying at least identifying infections and exposures before considering peptides. A lot of my reasoning behind that is that the body, the neurological system, is sending a message to our cells.

Right. And oftentimes I see a lot of mold illness. And what's happening is that as people are exposed longer and longer, they're more and more reactive.

And sometimes that can mean an autoimmune reaction. Sometimes it can mean histamine responses. So things

like food intolerances or hives or just feeling awful every day, feeling terrible after even just drinking water, people become more and more and more sensitive.

And part of that is that the neurological system is sending our bodies a symptom, and it wants us to pay attention to get out of that toxic environment.

And so if we then add a peptide, say like BPC, I, you and I both have BPC 157 but if we add something like BPC to try to get a patient to be more tolerant of things, then we're sort of overriding that signal, right?

A BPC essentially is a cell signaling peptide that sends this message that the gut cells should behave like they're healthy, right, to to break it down.

And if it does block the effects of toxins. But yeah, but you still have the toxins. But if the toxins are still there, then do we really want to override that message?

I think that what as providers, it's important to have an order of operations, like what are we going to do first so that we don't make the patients sicker?

Detox Pathways and Cellular Support

And I think there are a lot of times there's a message if we down regulate, if our if our brain is down regulating the signals that tell us to have more growth hormone, sometimes there's a reason for that.

Sometimes our energy, like you mentioned, cell energy. We need enough of it. We our energy shouldn't be going towards finding a mate or getting laid, right.

If we are sick, it might be going towards healing. And so maybe there's not that much testosterone in the body driving libido. And if we just add more testosterone, do we really solve the problem or do we just put a bandaid on it?

Even though functional medicine that and I find to and it's like, you know like how people in the same household and one person is they're all full of mold and you know, and the other people aren't.

It's really interesting. And these have Lyme whatever makes them unable to detox it or whatever it may be. They're much more sensitive to it, even with my own situation.

So my girlfriend has just developed terrible, dramatic gravity, you know, where you basically, reptilian makes me, well, so very mast cell. And you got this cough, and, she has mold, and I.

I'm negative. And, we had a mole guy come out. Not a lot, you know? So I don't know if she's getting it here or food, you know, vegetarian or or what, but, it's it's interesting the different tolerances to and which prior genetic combined with everything else too.

Yeah. So we've talked about structure briefly. I talked about it more on the macro level. But at the molecular level certainly we see this with neurocognitive function, the ability for genetics and the AP genetics.

There's there's a handful that really influence whether or not someone is susceptible to Alzheimer's. So you can have a lot of toxicity that doesn't necessarily mean you're going to end up with Alzheimer's.

But if the right constellation of things is the right, the perfect form come together, then it could be there. If you have that susceptible for other people, it may end up being an autoimmune condition for other people, you know. Yeah. I don't think that's with everything.

Oh, I might have a diabetic gene, but you have to eat crappy. But it'd be great. We'll get it. And epigenetic and I think even, you know, in the womb that even was transferred, not your kids, but your kids.

Kids, you know, and which I think is a reason why, you know, obesity is there. Kids are exposed to all this stress hormones in the, in the womb and toxins and like to show, autism may be a number one thing even over above vaccines is Tylenol.

So I want to get that out. Tons of studies. I'm like, why don't we ever hear about this? You know, it's it's crazy. The toxins that we have. So with that, so you're getting good results are just detoxifying.

These kids. Well, certainly it's probably just because it's it's not an easy thing. It's part of the approach. Right. So I wouldn't say that there's any one thing that's the magic answer.

I there's so often that I wish I could talk to a patient and they've shared their, you know, this horrible story and how much they're suffering. And I want to give them the magic pill.

I wish I had that. And unfortunately, it's just not it's not life. Yeah, yeah. And there is a it's about supporting the system. And certainly I think toxins are a great place to start.

Great, great. Let's I know we're we're short on time. What are there? Peptides. Yes. Yeah. So we had had a quick conversation about how I, I really love the ones that I can get Ahold of.

That's a big problem right now. And issue being able to get Ahold of them. Peptides. I would say since I finished school ten years ago or whatever it was now eight years ago along not that old.

If if it since then, I've added a couple of things that have really profoundly changed my practice. So Bill Walsh's work was one early on. And then training with Doctor Bredesen was another training with doctor Neil Nathan is another.

And then peptides, I would say, are like one of the profound things that I have added to my practice since, you know, starting naturopathic this career and saved money, saved my life.

And their practice. Yeah. They're incredible. And the sort of the, the philosophy around them that what we're doing is we're looking for what's missing in a, in a dysregulated state and what's actually there in a healthy state.

Using Peptides in Brain Health

So instead of focusing all our our energy on figuring out what's wrong with this disease person, we're saying, okay, well, what can we add that brings more health?

And it's not about, you know, of course I love that. But then to watch the results, to watch people's lives completely transform with adding just peptides, with that being the only thing to watch.

And is that the anti, you know, the antinuclear antibodies, the markers for autoimmune disease to watch them go to normal after years of treatment is just I mean it patient probably loves that too.

You know seeing it on paper. Oh yeah. Seen it on paper. Getting good sleep. Finally after years of insomnia, you know, having more energy. There are so many things.

I had a patient who's Crohn's disease completely resolved. I mean, just. Oh, we've had so many patients, nine year old go and get a collect me and a little BPC and, TV for free.

And then we ended up later adding KP and totally fine. And she would have had a whole life of them collectively, you know, people scheduled for surgery.

With the, getting the GHQ, that has been amazing. And I just there's so many things as well. Yeah, yeah, yeah, yeah. So it's a copper peptide used a lot for cosmetics.

Yep. I use it every day on my forehead for my wrinkles. You day. You got great skin. So you're a walking billboard for it. And, you said you haven't used really the dye hex.

Which there's a lot of studies, clinical trials on that and the 5 to 1 MQ mitochondrial boosters, they're just so hard to get. But we are again, probably or coming out with the 5 to 1 MQ, which boosts mitochondrial function, which is a another theory of even aging.

You know, we just mitochondria stop working in a vicious cycle. You can't, you know, the cells don't work. And then, you know, it just affects every, every since the body, the detox and everything gets worse.

Yeah. PPC also helps mitochondria as well. But, what else have you found that. Yeah, I think in terms of integrating the peptides, I, I tend to use them after we've gotten rid of the toxicity.

And then when we've fortified with nutrients. Right. Because the mitochondria, if you're going to, you know, increase mitochondrial numbers per cell or something, if you want more mitochondrial function, you have to still have the building blocks, right?

We can send all the signals we want. But if if the nutrients aren't there to support that, then the peptides are going to be able to. That signaling isn't going to have any.

Yeah. What what's the use. Yeah. Yeah. What's the use. Like nad with love nad right. So NAD is so important and it's one of those co-factors right. That makes all of this possible.

So we have to have all of the pieces. Right. Again it's there's no magic pill. Peptides are the closest thing to that. Well magic and general eight. You make sense.

It makes sense. But we've got to have other pieces. That's rare in medicine. Do it because that's what I learned. You know, the other thing is really getting a hold of that.

That's just management. Right. So we talked about some of this neurological signaling that becoming a pattern. So what I've noticed in my practice is sometimes we can get rid of all the mold we can.

You can move out of the moldy environment. You can even divorce the toxic partner. And then that signaling is still there. It's sort of like this learned programing.

So limbic retraining is a big part of what I suggest people do. And whether it's with Joe Dispenza or Annie Hopper, there's a lot of great people. There's there's a Gupta out there as well.

How long does that take and how often do they do it? So people do it daily. And I have patients who feel better in three days. You know, it is their. And that's the limbic system world of fear and.

Yeah. Yeah. And it makes sense. And I think of it kind of like a feral cat where if you immediately bring in a feral cat, it's going to be like a regular cat.

But if you if it's got its wiring environment for a month, you try to bring that cat in no matter what you do. You know, it's so difficult. So, man, you've just made some people's lives is so much better.

I certainly hope so. I, you know, there's the world needs problem solvers and that and their family members. My gosh. Yeah, yeah. We need we need these people to show up to be part of our communities, to be engaged in their families and, and, you know, help the world make it a better place.

Right. Like, it sounds so cheesy, but that's really why I do what I do when I watch, you know, these families who, who have loved ones who are sick and or ailing and they're not able to engage with them, they become more of a liability than an asset to the community.

I just think the dynamics change. I'm just it's so, oh, you've just made so many lives better. I can just tell me how long I hate to ask questions because there may not be any, like, how long does it usually take, let's say for an adaptation or Alzheimer's patient?

That's on how bad, I guess, you know. And what's what's the success rate. Yeah, in some cases. Well, thank you for asking. So that's what we're doing at the clinic right now.

We are currently recruiting for this study where we are trying to answer exactly that question. What's the success rate? If I spend the time, take spend the money, spend the time and do commit to this program, change my diet, get the toxins out, do all the testing.

How likely is it that myself for my loved one will get better? We don't have the answer to that question right now. So Doctor Bateson has published case studies.

I've certainly seen it in my clinic that this is absolutely reversible in some cases. And it's it's scary how, you know, no one funds these things. If they want one pill, one, you know, basically one outcome, that's not how the world works.

Yeah. Hopefully we're contributing work now. Hopefully we're contributing to that paradigm shift.

Limbic Retraining and Nervous System Reset

That's awesome. Yeah. There was a study. They're just rehashing these same old jokes. It's like $47 million of taxpayer dollars. Went back into studying one of these, one of these drugs that sort of already been proven not to be effective.

And yet people keep talking about the Edison protocol like there's no scientific evidence saying that it works. I think we have all the same evidence.

It's quackery. Yeah. It's a and you look at the studies on these drugs and the lines are like they do little things to manipulate the data. And it's barely better than placebo and billions of dollars.

They make. And with all the side effects we've I had. So my first reticent patient, I was not feeling overly confident, because I, you know, I was still under that assumption that there was nothing that we could really do.

I'd heard reticent talk, but I'd never done it myself. And I had a patient, my first patient, come in and she had a Moca of two. We sent her home. They were really excited about it.

Her husband was very, very supportive, really wanted to be doing this program. Got all of it. Started right away. She was better three weeks later. It was unbelievable.

It literally I was moved to tears, I was sobbing, I could not believe it. Wow. And you know, not everyone of course gets that kind of results. The easiest patient to treat is to prevent right.

Like it because adage it's way easier. It's way less expensive. It's way less heartbreaking to prevent this kind of disease. Rather than try to go in and reverse it.

It does take a while. The analogy Doctor Bateson uses is like this great big tanker ship going through the ocean at full speed. We've got to first slow it down, and then we have to slowly turn it around, and then we've got to get going in the other direction.

So what I, I asked patients to give me a minimum of six months commitment. That's nothing. No it's nothing. And compared to oh my gosh, a progressive illness like that.

And it can go on for years and years and drain the family of income and and just be so difficult. They're not the

same person. You know, it's a challenging program to implement.

And if patients can do it then I am they have to be full on board. They have to be fully on board. And that's challenging when there's cognitive decline.

And so that is why I opened Marama, the residential care facility. It's an immersive experience in this protocol because how insane. I saw so many families suffering.

And they were they were asking me, where do I send my loved one? I want them to be able to do this, but I can't, I can't. Yeah, I can't be the I've got to go to work so I can't keep them from like walking down the street and I'd be like the future model.

How many beds are there? Just 12 beds currently. Certainly. We hope my, my goal. It's really that we we shift the entire industry. So I, I suspect we will show the outcomes and saves money.

You know, it may be huge you it's stock. Well we hope to expand you know we I literally opened a nursing home March 1st of 2020 and then Covid hit. So that has been an interesting it's a wild ride this year.

But I wouldn't worry about all the regulations. And you know oh yeah, we we wade through all of it. But our first resident moved in the first week of March.

And so she's been there now six months. We're recording this in September. And her Moca square went from a 19 to a 24. So our first resident is already better, immeasurably better.

Our second residents, they moved in about 12 weeks later. And they are already doing better.

Reversing Cognitive Decline and Residential Care

We're not quite measuring it yet, but talking and paragraphs rather than one word answers, engaging at a totally different level. And so and also mood.

Just the mood changes. Sleeping that alone because like, they can be with their loved one and the loved ones. Not because of that, you know. Exactly, exactly.

I hope, I hope there is a trend to funding these things and, and changing that because what what do they get when they go to a neurologist. Six minutes and take this and this by and meds that don't work, they don't.

Oh hey, you're doing wonderful work. Obviously you're very caring and I don't know when you sleep, but, I'm very impressed with with all that. And I just wish you the best of luck for, for the country and the world.

I think you're just doing some amazing cutting edge things. And, I hope it catches on. Yeah, well, thank you. Thank you for your support. Thank you for helping me share, what we're up to and that this is possible.

You know, I, doctor Bateson says that Alzheimer's should be a rare disease. This is preventable. It's also treatable if you start early, we have more confidence.

So go out there and get the testing. He calls it a cog. Not Skippy. Right? Like, just like people get a colonoscopy. We should regularly be regularly be checking all of these parameters that influence our cognitive function so we can maintain it.

Yeah. Just just real quick. I know we have the but, do genetics you do what? Testing data. So like I described sort of with all of the the, the elements that I feel influence, our, our cognitive health.

Right. So we do all of the labs that we talked about for toxicity. So mycotoxins, heavy metals and chemical toxicity, we do a full panel. So we're looking for hormones.

I often read a Dutch panel because I like getting that for point cortisol. And then the breakdown of metabolites of estrogens. And then we run usually I run like a 6 or 812 which has an infectious panel.

I always do a GI panel, whether or not people are complaining about GI issues, because sometimes we find things there. The brain access is huge. Absolutely. What else is on that list?

Oh, Walsh, the Walsh work, of course. So I'm looking at zinc and copper ratios here in crypto Pyros histamine levels and and how that affects methylation.

So certainly detox capacity mood there's Alzheimer's. The things that come up with the Walsh ratios and metrics there. So at least that list and then depending on the patient, we may add other things that might be relevant.

And then ApoE4 status of course. Yeah. I think that's that's that's good to know. Yeah. So how do people find you if they want to find you. Yeah. So North County natural medicine.com is the clinic Marama Experience and Marama Marama experience is the residential care facility for the elderly.

And, I also host the podcast at Neuro hacker Collective Insights. So. So how do we how do we find that neuro hacker? So like. Yeah, collective insights is the name of the podcast and it's available where all podcasts are.

Nice to do that once a week. You know I, I host it I don't really own it. It's, it's through if through neuro hacker who they're the makers of qualia and I love and support the crew there and so show up as the host and dig in deep to the people, I guess.

Hey, it's it's tough. I mean, you have to be prepared, and, you know, you have to know your stuff. That's that's great. I have to check that out, too.

Yeah. And I'm going to send you some products, too. I'd love for you to evaluate and give me your, opinion on that. Yeah. Once there's conferences happening again, I know that I'm going to be running into you in person more and more. Yeah, yeah.

If we can get through this virtual conference thing. Yeah. So, hey, thank you so much for for being on. This has been a great conversation and just learned so much.

So, thank you. And again, the best of luck to you. And, you're just doing great things. Thank you. Thank you for getting the peptides out there. People need them.

Great. Thanks so much, Adam. Have a good one. YouTube. Bye bye.