Introduction and Summit Welcome

Hi, everybody. Welcome to the Peptide Summit. My name is Matt Cook, and I'm here with Heather Sanderson, who's a doctor, and a friend who I'm actually super impressed with.

And I have been looking forward, to the Sunday afternoon and podcast, all week. So, I have, we've shared patients that I found Heather to be an incredibly knowledgeable, and, and fantastic doctor overall.

And, she's interested in brain health and is doing some probably what I think is probably some of the most interesting, work in the entire world, in terms of what she's doing for cognitive change and, and Alzheimer's and dementia.

So, with that being said, welcome. I'm totally delighted to have you here. Thank you so much for having me. It's been so fun. I had just so listeners know, I had the chance to go up to your clinic and, hang out there for a week and see what kind of magic you guys are up to and what you do.

The procedural side of the injections, the, plasma freezes, the ozone dialysis, all of these things really complement, I think, what I do so well. And of course, as the doctor I am and like, oh, how can I do this down to my practice, how can I incorporate more?

So I'm excited to share more patients with you. I everyone who has been up to see you guys, all of my long term patients that have been up to see you already have really benefited a ton.

And so I'm just grateful for what you're up to in the world and just how generous you are with sharing what you do. Oh, thanks. Yeah, we have the Grateful Dead model.

I think we're trying to give that away. So, because there's so much. Yeah, I've I've been I've had this give it away idea of just saying almost anything, that, we think is true because there's, a they say the computer chip doubles every two years, and how fast it is.

And I think the information on regenerative medicine and integrative medicine is doubling every two years because people are just there's so much information there.

So, I don't want people to be overwhelmed by that because sometimes that can lead to sort of this paralysis. And, in the case of Alzheimer's, dementia or any sort of dementia, any sort of cognitive decline, sometimes that can start to feel really overwhelming of like, oh, I'm not getting it quite right, or I don't have that magic bullet yet, or they're learning so fast, but I don't have to worry about it now, when in reality we know so much that we can do for cognitive decline.

And really, my message if anyone takes anything home from me today, it's that if you're noticing cognitive decline, the time to engage with a doctor who can.

A functional medicine doctor who's probably trained by Doctor Bettison to help you reverse that cognitive decline. You want to do that immediately. You don't want to wait for it to get worse.

It's so much less expensive. It's so much easier to prevent dementia than to treat it. However, we see miracles happen.

Rethinking Dementia and Alzheimer's

So we'll talk about that. Okay, great. So then let's dive in. Give me define define dementia for me. Yeah. So again

and when I'm reading this book I actually have it right here.

It's called How Not to Study a disease. And the Story of Alzheimer's. So a lot of people say Alzheimer's and they mean dementia and Alzheimer's is the most common form of dementia.

But dementia is essentially when the nerves in your brain, the the connections in your brain start to break down for one reason or another. And Western medicine has had this, approach of calling things one thing when you've got so calling a disease like dementia one word when really there are probably 75 different ways there are causes that you got there.

And so what we call it, so whatever the name is, I, you know, I really don't care. You can call it Alzheimer's, you can call it dementia. And some people get attached to these ideas and there are differences with like a Lewy body dementia where people have hallucinations and big personality changes.

This can be extremely torturous for family members, especially frontotemporal dementia. Is vascular dementia. There are different types that sometimes start to speak to etiology or the why the pathophysiology?

What went wrong at a cellular level? However, even in many of those cases, it's very unclear, right? You can have people with Alzheimer's who have amyloid plaques and how proteins, but also have Lewy body.

You can have people who are clinically diagnosed with Alzheimer's, but then when they die and we see what's in their brain, they actually have no amyloid plaques.

We also have flipside of that, where people die at 105 and they have no dementia, no cognitive decline at all. They're perfectly in great cognitive shape, and they have brains full of amyloid plaques.

So there, this gentleman, Carl Harrop, I've only read his name. Sorry, not heard it, but he wrote a book recently. There's how I got to city a disease.

And he breaks down this story of how with dementia, we got so off track and it was really, you know, there were some egos involved. There was some bad timing there.

There was certainly politics and money involved, but we've started to we've been really attached to this idea that we need to go after amyloid plaques in the brain.

And what we're learning after billions and billions of dollars and countless hours of very smart people's time, is that we were we've been on the wrong track, and we really need a full paradigm shift away from this reductionistic idea that one thing is causing this disease.

We need to take that step back and say, okay, how can we support cellular health? How can we support the health of every cell in the brain, whether it's, you know, the the immune cells or the neurons themselves or the support cells or the myelin sheath surround it, how do we support the mitochondria inside of them?

How do we support every step along the way and make sure we at a very simple level, we've got the the junk out and the good stuff in supporting cognitive function.

Okay. Perfect. I would totally agree with that. And and from a reductionist perspective, you know, Western medicine, I even when there was like some ads, I heard, you know, on the TV, the, the music came off and the TV ads came on and I was hearing, you know, advertisements for like the new medications for dementia.

But the reality is, is I think that it takes an integrative, functional approach to, to deal with, cognitive change. And probably Doctor Bredesen has been the the person who really defined, that maybe, maybe introduce people to who he is and what what happened to around that and and how you use as his perspective.

Yeah. He really is have paved the way here and I'm shamelessly riding his coattails. So Doctor Bateson is a

neurologist and he is also a bench scientist.

So he's contributed a lot to the research. And throughout the 80s, 70s, 80s, 90s, he was working on what he calls mouse timers. So he was in a lab looking at what was going to affect, the brains of mice, both in good directions and bad.

And over time, what he realized was that, you know, like many people, I think in the dementia space, especially in the pharmaceutical space, they realized, like, we're we're barking up the wrong tree.

And so he took he did that. He took the step back and said, okay, what are all of the things that are supporting or destroying neuronal cell health? And in that he came to a more kind of complex system science approach.

And when I heard him give a talk in 2016, 2017, I heard that approach. He was being comprehensive about it and unapologetic about how comprehensive he was.

And in that I was intrigued. And yet I had heard from well-meaning instructors and very smart people that there was nothing you could do for dementia and to suggest otherwise to their friends and family, and to them would be to, you know, to give them false hope.

And it would really be detrimental. So here I am listening to Doctor Bateson, very intrigued and compelled by by his approach, but not really believing it, feeling very skeptical.

So I went to his training because I wanted to know more, and then I ended up on his list of doctors who had been trained. So then I had patients coming to me with their spouses, their loved ones, and they were more convinced than I was.

Bredesen's Functional Medicine Approach

But there I was, I was I was going to follow the protocol. That's what they were there for. And so we ran all the tests and we we did all the things. We got them on hormones and got them on the right supplements, and we figured out what was going on and got them out of moldy homes.

And my first patient, Linda, she came in with a Moca of two. So a Moca is a 30 point scale. It's the Montreal Cognitive Assessment score. She had a Moca of two the first day I met her and I would ask her a question.

I could see her comprehend the question, but by the time she was able to answer it, she had forgotten what the question was, so we couldn't really have a dialog.

Her handwriting had been affected. She was a shell of herself, her, of course, her relationship with her husband was affected, but he was very, very committed.

And so they did everything. And they came back seven weeks later and her Moca was now a seven out of 30. And when I saw what was possible for Linda, her handwriting was back to normal.

She could answer a question, she could carry on a conversation. And the best part, which was bickering with her husband about something that had happened the night before.

So their relationship had changed, her life had changed. And when I saw what was possible for someone like her whose disease process was so progressed, oh, I mean, how could I not commit myself to this work for the rest of my life?

Right? Like, imagine what's possible for people who are earlier on in the disease process. If that was what was possible for Linda. So since then, I have been seeing reticent patients, cognitive decline patients.

And then I was very fortunate to be awarded a grant to study this approach. So we took 25 participants through, a

six month protocol of aggressively treating their dementia, doing all the functional labs so that we could understand how was how were nutrients, how were toxins, how were stressors, how were hormones?

Traumatic brain injuries. We talked about and treated, infections. We tested for it and treated. So once we got this really comprehensive view of what was going on, what was affecting that cellular health, we treated it.

And then six months later, we measured again what their cognitive function was doing. And, so we're excited to publish results, around that, doctor Bateson did a very similar trial, and his group two, and a couple other doctors they published about, in April of 2021, and they showed about 75% of their participants reversed their cognitive decline, some by a little, some by a lot.

And compared to our conventional treatment rate, most neurologists are going to say, here's some aricept or some namenda. It doesn't work very well, but maybe it'll give you a little bit of time to get your affairs in order.

And then the expectation is that you go downhill. What we're showing is that there's so much more that's possible. So then that first case, Linda, she, she came in with a two, for her score for tell me about like, somebody who just is first having cognitive change.

What are some numbers you're going to see what what are the spectrum of numbers you see then. And then once people start to get treated, how much do those improve?

Yeah. So this is a 30 point scale. The Moca is and 30 is perfect. And many of you have probably seen this. There's a rhinoceros and a lion. And so you name the animals and draw a clock and copy a box.

And you know, there's a pattern and you count back by some number from 100. And so there's a, it's a 30 point scale. So if you get all of them right, it's 30 normal is over 26.

And if you're starting to be under 24 you're probably having some cognitive decline. Now. It's a huge privilege. It's my favorite thing when someone walks in and they say, I just started noticing that I am not remembering things, I would have ten years ago.

Names, places, my schedule, what time my flight leaves in the morning, those kinds of things that I used to have a really good handle on. I used to be able to figure out new things, or read the instructions and build something or get something done, and I just am not as sharp as I was.

That is my favorite time to intervene, because those people are better sometimes in a month, sometimes in three months, and then if they can just maintain a relatively healthy lifestyle, they're pretty good to go.

So and then then of course, you know, annual check ins, but it's, it's not heavy, heavy lifting. It's minor tweaks. And that that's really exciting and really fun.

Now, if we had someone who's more progressed, you know, in their in the 20s. So we've had a handful of people who have a mock up, say 2021. They're in their 50s, 60s, early 70s.

They're getting back up to 30. So that happens regularly. And this is, you know, this is measurable cognitive decline. So it's not like we're taking people at 30 and then they're telling us, but subjectively they're better. Right?

They're just telling us that they feel better. We're measuring people who are saying 20 years ago I can figure the computer out, and now I can't keep up.

And then we get them back up to 30. And, there's a lot of overwhelm that comes with this and the overwhelm goes away. One of my favorite stories from one of our patients, she, she, you know, love, of course, loves her son.

So her son lived about an hour, hour and a half away, and she was so overwhelmed by getting on the freeway to go see him and to drive to him and afraid of getting lost and worried about maybe, you know, being out after dark

and how she might not make her way home.

And so she had stopped going to see him and she wasn't seeing her grandkids. And by the end of six months, she was like, it's no problem. I go see my my grandkids every week now.

So it's really neat to hear that, this kind of thing, this kind of work rate. I think we can all agree there are a lot of problems in the world, right?

There's this idea of this, like meta crisis. Like where, like the planet society, that what are we doing financially? Economically? There's a politically.

And we need our elders. We need these seniors who are at the height of their wisdom and experience. We need them engaged with us. We need them talking to their grandchildren. We need them.

We need them here to help us figure this out. And so that's really what I see my work as is. It's protecting and preserving that wisdom and experience, that the world so needs right now.

That's a that's a good one. And.

Early Cognitive Decline and Testing

What I would say is that from a financial perspective, at an, at a societal perspective, those, those early cases where people are are, you know, just having that initial change, the, the modalities that you're talking about.

And I think this is maybe going to be a jumping point in terms of kind of getting into that are not super expensive because basically what reticence looked at is he said, hey, let's let's pay attention to bloodsucker.

Let's pay attention to all of the obvious functional medicine things. Let's take a systems biology approach, basically, and apply it to the brain and see, see what we can do.

How, how do you put together your thoughts on sort of let's say we've got a simple case, and, and no case of cognitive change. It's going to be simple, but but how how do you put that together in terms of how you think about it and how you talk to people about it?

Yeah. So if I have the privilege and the opportunity, I like to be as comprehensive as possible about work up from day one, because what I don't want to do is spend people's time and money and six or 8 or 9 months down the road we go, oh, we never tested for heavy metals, we never tested for mold.

And then that's what's holding us back. So what I really like to do is get a lay of the land, understand? It's. And, you know, most of these people are in their sixth, seventh, eighth decade.

And so there's a long history. So we spend 90 minutes together the first time, and I collect as much information as possible about anything that from their their history perspective, could be impacting their cognitive function.

And then from a lab perspective I have buckets. Right. So again, at a very simple level we're going to get the junk out. And get the good stuff in. So I want to know about toxins.

And I think of them in three flavors mold toxins chemical toxins and metal toxins. And if any of those are there, step one is to get them out. And then from a nutritional standpoint, I want to know, do you have enough?

Do you have enough in your cells? Do you have enough from a functional medicine perspective? Right. Not not too little vitamin C that you have scurvy and your teeth are falling out, but do you have enough B12 so that you're methylated and an adequate level so that you're able to to metabolize your neurotransmitters and detoxify?

And so we we're looking for that kind of level, through testing I use the serum testing, I use intracellular testing. And

depending on the patient and their insurance, and we try to be practical and keep the costs down.

And then, infections. Oh we'll add that to nutrients a GI panel, a stool panel. I do want everyone I if they're having you know, hopefully everyone's having a bowel movement a day.

But even if they are I want a stool panel because whether or not you can digest and absorb your nutrients has a massive impact on whether or not you're going to have enough of the good stuff.

And then also, it's very easy to get inflammatory markers or inflammatory cytokines or, inflammation in the gut. Basically, inflammation often will start in the gut.

Infectious imbalances, parasites, things like that. I want to catch them early so that we can balance the gut. Right. Health starts in the gut. And then the gut starts in the mouth.

So addressing dental stuff comes up very, very quickly as well. So in toxins nutrients. And then infections I want to understand right away because if somebody has headache outbreaks regularly, if they have gingival in the mouth or if they have Lyme, the Lyme spirit in particular can cause a lot of inflammation, the brain.

So those three are the ones most associated to or most directly associated with dementia. But a high infectious burden in any one is going to just be a drain on their system.

Right? You're going to be spending resources fighting infection versus building neuronal connections. And so we want our bodies, our brains oriented towards growth, towards new.

And so another piece of that is the signaling. So hormones and this is the peptides in that. So thinking about what what kind of signals can we send and how can we do that.

So things like stem cells and exosomes and peptides certainly come up. But so do testosterone estrogen and progesterone vitamin D, thyroid hormone. Getting all of those things nicely balanced makes a huge difference.

We know that women suffer from that from dementias. About two thirds of the cases of dementia are female, so it's not a 5050 split. Part of this is explained because women live a bit longer than men.

But another big part of it is just menopause that women have this this drop off of hormones when they hit menopause. And that's when they experience a lot of cognitive decline for many people, not everyone.

And so we want to be supportive of their brains by giving them back some of that hormone. Of course, working with the provider that's skilled in this area and can assess risks and benefits with you and talk you through all of that.

But trophic support is really important to maintaining and then and and reversing cognitive decline and maintaining cognitive function and reversing decline.

So another thing I talked a bit about about the mouth. So certainly from an infectious perspective, if there are cavitation or root canals or abscesses that people don't realize, mercury amalgam still in the mouth, that's a pretty high priority to take care of.

The other piece that comes up in the mouth is structural in terms of sleep apnea. So can you keep your airway open at night? So there are two things that stop me in my tracks when if you're not having a bowel movement every day, that's step one.

If you're not sleeping, if you're not getting good sleep, or if you can't get air, into your lungs at night, you can't get oxygen to your brain at night.

That's also step number one. So those become absolutely critical. They have to be addressed immediately. And most of my patients, I'll order an at home, sleep study on these days because I just don't trust when someone says,

oh, no, I've never stored but nobody sleeps with me.

I just don't know. I don't trust it. And oh, I've never woken up gasping for air. You do not need to be overweight. You don't need to wake up gasping.

Just waking up tired in the morning is enough for me to say, all right, let's get a sleep study done. And we live in such a day and age, it's great. You know, you can get a Garmin or a Fitbit or an Oring or an Apple Watch.

There's so many things that you can get to monitor your sleep and get some sense of, okay, am I getting good? Good oxygen flow to my brain? To all of my body?

Am I am I getting restful sleep, deep sleep, REM sleep? What does that look like? And so getting that feedback and then tweaking things so that you're optimizing sleep, it's such an important time for the brain to detoxify.

Also to process memories. So really, really important. Another critical piece of this puzzle is stress. So we want some but not too much and too much stress, particularly for caregivers.

If there are any caregivers listening to this, the people who care for dementia are at much higher risk of getting dementia. It's two and a half times the normal population because it's such a stressful job, and particularly when it's a family member.

So when you're deeply emotionally connected to when you see them, frankly losing their minds, that is really physically challenging, emotionally taxing, and financially often a huge burden.

And so for caregivers out there, I really want to stress the importance of of taking care of yourself and managing stressors. So whether it's meditation, prayer, yoga, or whatever that means for you, exercise is another big component of this.

There. There's lots here, and I don't want to overwhelm anyone, however I do. I think that so often we're told by neurology or super smart people. Right.

But there's nothing you can do when in the reality, there's so much that you can do. And just getting started is really step one. Okay. So then that was a lot.

Let me recap that. And because that's so it's so good. And I think it's so worth hearing. So there's a few things that when they happen are just relatively catastrophic for the body.

And one of them is sleep apnea. A friend of mine was, shared in a hotel room with her sister, and then she called me and she said, well, my sister stores and has sleep apnea.

Lifestyle Foundations: Diet, Sleep, Stress, and Blood Sugar

But, but so then, you know, then you think and you think about cognitive change, and it could be toxic. So then you think, oh, okay. So mold, toxins and water damage buildings and mold is kind of more than itemize these than maybe some other bacteria to what.

That's one thing you can check in the house. And so then for people listening all of a sudden there's a, there's a detox to your life and there's also a detox, your house, there's a whole bunch of other toxins.

And so then you begin to say, okay, well, maybe we should do some testing and start to figure this stuff out. And probably sooner than rather than later, you know, maybe.

And you're if you're 65 and you're starting to have some mild issues, these are relatively cost effective strategies of working your way through. And then, you know, we have not done a great job in Western medicine of paying attention to stealth infections, things like Braly, Bartonella, all of these things.

But I think with Covid and with, you know, the Covid people can have long Covid, people can have long term viral things, but all of those things can be an immune stress.

And so suddenly you begin to pay attention to all of this stuff. And so then you start to pick off and work your way through. There's the gut brain axis.

So then you're basically paying attention to all of that. How how, how big of a deal is blood sugar? Oh, Matt, I'm so glad you asked that, because I somehow I forgot the most important piece.

I essentially will not work with somebody who isn't willing to change their diet. Because I lose that does 50% of the lifting. I lose so much value from our approach.

If we don't have that, that I just lose confidence that it's going to work. And so what I recommend is that if you haven't tried it and and if you're working with a provider that you get into ketosis, if you're struggling with cognitive cognitive decline or you have ApoE e4 four status or even three four status.

So if you know that genetically your predisposed to dementia, maybe you have several people, grandparents or parents who have had dementia, then I recommend getting into ketosis yesterday.

This is essentially switching the fuel for all of your cells. But in your brain, it's particularly important because your brain needs so much fuel. So switching your fuel from sugar or carbohydrate to fat is can be profoundly impactful.

And the side effects are pretty incredible too, because it's usually better sleep, better mood. You get off the sugar swings that your blood sugar comes down, your diabetes reverses.

This is, the A1 C's come down. So this is, so impactful and sometimes challenging, right? There's a little bit of people call it keto flu or even just sugar detox.

Right. We can physically be addicted to sugar. And so it takes a few days to get up and over that withdrawal. But once you're there, you get the benefits of mental clarity.

Fasting is part of this as well, so people get even better results when they can incorporate intermittent fasting and sometimes just 12 hours of fasting per 20 for 12 consecutive hours.

Or sometimes people are going up to 16 or 18 hours of fasting. And this can help you get into ketosis. And then it can also help to get even more improvement in terms of the cognitive function.

What I've seen clinically is if you're testing blood ketone levels now, there's breath meters and there's urine strips and then there's blood. And what I'm talking about here is blood, because I have found it to be the most consistent, if you are aiming for about over one.

So getting over one minimal on a blood ketone meter is in ketosis. Mild ketosis is over point five, but you really want to be up over one. And then we see that the people who can get to 2 or 3 or even four do even better.

So the higher you can get your ketones, the more cognitive impact you get. And this this makes some sense. I think of it from an evolutionary perspective, like if we think of our hunter gatherer ancestors, they didn't have access to sugar 365 days a year, right?

They had times when they were they were starving. They basically and they needed to look for more food. Or maybe it was winter and they couldn't. There weren't tubers, they weren't carbohydrate rich foods available.

And so our we have evolved to go back and forth from brain sugar to brain fat. Now the other thing is, if you can't find food, you don't want your brain to turn off.

You want it to turn on so that you can figure out where that next food source is. And what we're doing in ketosis

and with intermittent fasting is a fasting mimicking diet.

So you don't have to be one of our hunter gatherer ancestors that was dying of starvation. What we want to do is trick the body into thinking that we are so that it turns on cognitive function and this is, I'm sure you're familiar with David Sinclair and his work on on lifespan health span.

And brain span, like, how long our brain stay active? Fasting is one of the few things that has been proven to improve life span and healthspan. So you know this again, the side effects of doing this are improved health.

You're going to be here longer and you're going to live here healthier. So no, not a lot of downside. Now if you don't have a gallbladder, if you have kidney issues, you know, we want to be working with a provider to make sure that this is healthy for you, particularly if you have extensive health history.

For for years I used to fast one day a week. And so then I, and I started doing it during the week. And, you know, people you would say, oh, well, is that hard to do?

You know, when you were like, I was doing like really big surgeries and stuff like that. And I found that initially you go through all of these cycles of getting crazy hungry and then I'll send you felt totally fine.

Yeah. And then you get hungry again and you feel totally fine. And then going through that process, basically I overcame that. And so then if you said, oh, you can't have anything until tomorrow, I would be totally fine now.

But once I kind of and, and and so I found it to be one of the most impactful things that I've done. And I really I did notice that really kind of turns your brain on.

Yeah, it really does. And it's free, right? Everybody eat. And in fact, you might spend a little less because you're going to be eating less frequently.

And so I think sometimes you will get caught up in this idea that I've got to get all these tests done, and I've got to do all of these things, and I need expensive this or that, and really getting into ketosis and getting more exercise, prioritizing sleep, meditating, just doing that alone can have dramatic impacts on cognitive function at any age, right?

Like this is good for teenagers. Well, teens teams in ketosis maybe not, but a 20 year old, you know, somebody in college who's looking for a little bit of an edge, cognitively prioritize sleep, get into ketosis, meditate.

You know, these that make sure you're having a bowel movement every day. These these things are profoundly effective. And then we can start to layer on top things like stabilization and sealing and Cmax and all of our BPC and T1, all of our peptides.

Right. So and then we'll get into that. Although it it's important to hear that for cognitive change. And that's why I, I wanted to kind of to talk to you about it because I think this is what, what we're talking about, all of the entry level things are the most important.

And that's also where all of the data is, and that's where you're turning it around. Because what happens I think cognitive changes, is the is the change as the consequence of lifestyle. And so then to change to change the cognitive change, you have to change lifestyle.

Which is which of which is a good one. Now then you but you are doing something very interesting. Tell me that I, I think is probably one of the most interesting things I've come across in my entire career, which is that you, you realize these easy cases you can handle in the clinic, but then for the hard cases, it takes a more intensive approach.

And so then you have an inpatient facility where you're working with people. Yeah. Thank you. It's been a wild ride and really fun. Very rewarding. So it's called Marama.

And it's a residential care facility for the elderly that I created. And it was really inspired by caregivers and patients. Right. These people I saw working so hard to take really good care of their parent or spouse when they were juggling, you know, often with adult kids, they're juggling their own kids and they're juggling full time jobs, and then they're trying to take care of mom or dad.

And they really, you know, they're bright people. They get the reticent approach. But just doing it takes a lot of time and energy that they just don't have.

And I saw that and related to them. And so I had a few people asking me, where can I send my uncle or my dad or my loved one? And when I looked around to see, is there a facility, is there a senior living facility doing this?

There wasn't there wasn't one that I could really trust. And so I thought, well, how hard could it be? Well, just make one. And there have been we opened March 1st of 2020 and the world shut down the next week.

So it's been a wild ride, an absolutely wild ride, but really, really inspiring to see. We have a woman with us now. I actually, I, her caregiver called me in December of 2019.

So before Covid hit and at this point I was creating Marama and we had a we had a facility, a physical facility, and we were doing all the work to get it ready for, for residents to move in in March.

And, I have lots and lots of people calling from all over the world, and we basically had a waiting list pretty much right away. And, this woman called and she said, hey, I have my friend is this incredible woman.

She has a moca of zero. So she's non-verbal, essentially, and she needs one on one care. And I just said, you know, I don't know that we can help. I don't know that she can get any better.

And so I went to save our 12 spots for people where I have a higher level of confidence. And so then Covid hit and everything fell apart. You know, everything was different after that.

But her caregiver called me back again the following December, and she said, I know that you said that it wasn't a great fit a year ago, but what do you think about taking her on now?

And because the caregiver was so persistent, I was like, all right, let's have her come. So she moved in about a year ago. And this woman who was non-verbal and, she would grab someone's arm and like, shake it, right?

She couldn't speak, so she couldn't tell you she was uncomfortable and she was not violent. But, you know, she had to communicate somehow. And she has like, she has a read someone's name tag.

Marama Residential Care Model

If you say, hey, how are you doing? And I'll rubber back and say, hey, how are you doing? I'm great. And she now she'll she'll respond appropriately. Sometimes she spelled her last name for someone not that long ago.

I mean, she's not going back to work, right? Like, I don't know, like I would be now. I'm still a zero, right? She's not she's not able to write or draw or anything.

Her milk is still is zero. But she can tell us I'm cold. She can say I'm hungry. She can she can communicate. And you can see the joy in her face that wasn't there before.

So she's not going back to work. But the message I have and what I learned at a at just like a soul level was, I can never tell anyone again that there's not hope.

There is always hope. And and watching her experience of the world change so profoundly made me feel that even if people aren't getting 100% better, having them get somewhat better so that their existence is more manageable, is more enjoyable.

That is worth every minute that we spend doing it. What are the what are the top five modalities that you guys do at an inpatient level? Yeah. So ketogenic diet organic ketogenic diet. Right.

So we don't want any junk coming in. So no toxins coming in. Everything is high and highly nutrient dense. Really yummy food. I try to be there for lunch as often as possible and then brain activity.

So the entire day is set up to allow people to be stimulated. The community setting also I think is really, really important. So having each other not being isolated and then the engagement is, is stimulating, not overly stimulating, so that people feel it's not chess.

Nobody's learning to play chess, but bananagrams and simple Scrabble and Uno and puzzles and, we'll do something we call Daily Chronicles most days. And that looks like what happened in this day in 1945.

Right. And then that sparks conversation and people will share. Oh, on March 7th, I got married to my first husband and we had this beautiful ceremony.

And so they're engaged and they're remembering and they're sharing, with each other and then celebrating with each other as well. And there's an anniversary in the house or there's a birthday.

It's really fun. So that sense of community, the brain challenging games and we we do brain HQ, we use several of those. We have singalongs. So it's really about keeping everyone engaged.

And we have the amount of staff that's necessary to do that. Right. It's very easy for someone to walk off and be like, oh, I'm just going to go take a nap, or I'm going to go listen to music or something, and they'll walk off.

But we have enough staff that say no. If you if you leave, we're going to miss you or we need help with this, right? Different people are motivated by different things, but our staff are attuned enough that they kind of know how to keep people engaged.

And so the staff, the other thing with staff is that they expect our residents to get better. They see it every single time someone moves in, they see them get better cognitively, they've seen them get stronger.

They see them sleep better, they see their mood regulate. And so our staff are expecting that. And if they're not seeing it, they're coming to me. They're coming to who they're telling the doctor.

They're telling somebody, hey, like this person, they're not better yet. And so what are we missing? And then so we have the diet. We have the activities, we have the exercise.

So we have personal trainers on staff and people who have experience with physical therapy. They're not pets on staff, but they're PT assistants. And so they help with posture.

We're getting everybody engaged. We have a circuit. What we call it's a circuit it in our casita. It's a little gym that's set up and, our residents rotate through the levo, too, which is a contrast oxygen therapy machine.

And there's a bike associated with that. So some people use a treadmill, we use a bike, and then we have a rowing machine. We have a rebounder, which is good for detox.

We have saunas, we have a bio mat, which is a warm amethyst mat. That especially is great when someone has a bit of anxiety. They can just lie on the mat.

We don't force anyone to do anything but that team. We have people go down in groups, when we have really great staff or great cheerleaders and coaches, and then also having that group dynamic of doing it together really gets people pumped.

And so in some days, you know, somebody wants to sit it out. And that's all right. Rest is important too. And yet

going down there, day after day after day, you start to see the accumulated benefits of it.

So diet, the activities, the exercise, the caregivers and then the environment. So at Marama, you mentioned mold. I am adamant that if there is ever a leak and sure enough, there always.

We had the dishwasher leaked one day from the kitchen down into the floor below. We had a gasket around a shower that, you know, eroded somehow and it was drain dripping into the closet below.

So those things happen. The difference, I think, with us is we don't just plug it up and walk away and assume that it's fine because we clean it quickly.

We have the mold guys coming out and they're cutting out any drywall that got wet. They are testing, and then they're coming back a couple weeks later to test again.

So we are adamant that no mold grows in that house. We have IQ air filters on each floor that get the you know, there are some things like fires, right?

Like we're in Southern California. We can't help it if there's a fire, you know, a hundred miles east or 50 miles east, wherever it is. And so we want to keep any of that toxic air, anything in the air we want to keep that to a minimum.

And so we run those filters all the time. We change the part that needs to be changed regularly, because that's only as good as the filter that's in there.

And then we have organic mattresses, organic linens, nontoxic cleaning products from the detergents to the personal care products. So the shampoos, conditioners, the shaving cream, whatever it is, the toothpaste, we, we supply all of that for everyone so that it's not something that they're, daughter needs to worry about.

Right? We just make sure that it's all nontoxic. We aim to use fragrance free. Because some of those fragrances are quite, toxic for the brain. Especially the synthetic ones.

The natural fragrances. Not as much, but. So we. Which aim to keep the environment very calming on the nervous system. And so for lavender might be calming for one person but might trigger a memory for somebody else that isn't isn't the best one.

So keeping the sounds, the visual stimuli, all of that serene kind of Zen like is part of our goal. So we don't have TVs on every on every wall. We have a TV and it gets closed behind a cabinet and it comes out for musicals or the opera we do.

That curtain creates this, that 12 minute meditation we do every morning and that, has there's some literature, some science that supports that, that is, helpful for cognitive decline, for reversing cognitive decline.

So we're committed. It's just 12 minutes. It's a and you can find it on YouTube. There's no reason that anyone, can't do it. Everyone should be able to fit it in.

And again, caregivers, I recommend doing it with whoever you're caring for. It's really neat to watch the residents because they first started and they they can sign and the other finger and then after a week or so they're they're in it.

They've got it. Oh really. It's really neat to see. So environment diet caregivers the activities both exercise and and the brain stimulating activities.

We have yoga and meditation. We have people who come in. We have pets and animals that come by and visit, pet therapy, music therapy that comes occasionally as well.

But the day to day flow is, is essentially that we, just interesting. I, I'm just thinking about, like, my life as you're

telling the story because, you know, I used to go to nursing homes to like, if somebody broke a hip, you might go over there in pre-op, so that they could come to the hospital, or if we had somebody that had a big surgery and a lot of times they'd go to nursing facility and then, we would go see them kind of for pain management.

And so then I used to do that and essentially the most toxic smelling place that I have actually been in my life, and all ten of them would all be nursing homes.

It's like there's a crazy, at, think about that. And then to think, the worst food that you can eat on the planet generally is you'll find in one of two locations, you know, you'll either find it in a hospital, hospital food is absolute or, a, nursing homes, you know, because it's it's kind of nursing nursing homes that's they're getting, like the grade D meat and, so bad.

Yeah. I, you know, this whole I mean, this is why I do this work, right? It's I know we can do better, like, at a societal level. It's not okay. Like, we can't park our seniors in front of TVs and feed them cereal for breakfast.

You know, a baloney sandwich for lunch, pasta for dinner and cake for dessert and and alcohol, even in coke all day. And and the soft serve on demand.

Like it's just not. It's the worst diet for your brain. And of course, then the expectation is that people go downhill when they move into a facility like that.

And the smells, the care. It's just a I mean, obviously it's an entirely different experience at Maremma, but seem like you seen that me that it inspired me to be like, no, no, we can definitely do a better job here, so let's do it.

That's amazing. And that, you know, the mold thing is you gotta get, you know, people got to get into understanding this and thinking about this because that when, when, you're when people have, when, when there's a building that has, high level of mica toxins, particularly after water damage.

Yeah, I will often when I'm talking to people, you'll be sitting there and you'll be trying to figure out this person was doing totally great. And then three years ago, all hell broke loose.

And then you're talking and talking, and a lot of times you end up finding out that the house was flooded or they moved into an apartment and that apartment that was moldy around that time.

Like, I can't tell you how many times you're you're talking through a complex problem, and that's what you come to, I would agree. Yeah, I do that often as well.

So I'm just 100% in love with what you're doing. I'm totally supportive. And, and I think the most important thing is that at a, at a baseline, those are these obvious things to do.

In terms of peptides, how do you put together which ones you like to use, where you like to start and, and how you think about that? Vis-A-Vis, you know, cognitive change. Yes.

But the peptides I've used the most are not directly related to cognitive function. They're BPC and thymus and alpha one. And the reason why is because when we treat the brain, when we're treating cognitive decline, we're treating the whole body right.

When I say that we want the brain cells to be functioning optimally and have the junk out and the good stuff in, but that really relies, if we're going to do that for the brain, we've got to make sure that the gut is healthy, that people are out of pain, that they're not in the stress of having a joint that's been destroyed, that they don't have an overactive immune system or an underactive immune system that isn't effectively basically battling the infections that can lead to inflammation in the brain.

And so to do this, I leverage thymus and alpha one and BPC often, especially when I can get them and patients can get them. So and I've I've seen miracles happen.

I would say that with to one more times than not, if somebody has a positive RNA or an antinuclear antibody, and we can use injectable tier one regularly for three months, that A and A is often disappearing right there.

Their immune system is a weak, autoimmunity is going down. Autoimmunity is going down. Right. And this is another disease process that we're told over and over again.

It's irreversible. So just use steroids or you, you know, address the symptoms. But don't ask the question from the from the kind of reductionist perspective or from a Western perspective.

We're not asking the question. Okay, well, why is the immune system out of balance? And that's the more interesting question to me. And getting our diets dialed, you know, all those foundational pieces we talked about, we need to do that first, or at least simultaneously, because if we want to send those signals to the cells to behave, to basically have that, that normalize function, we want to make sure that we're getting rid of the signal that has told them to not do that right, to be out of balance.

And, otherwise we're we're just spinning our wheels. And then it has been so profoundly helpful for the gut. I had patients, several patients who had Crohn's disease, colitis.

And to watch that disappear. And in a matter of weeks after having patients having suffered with that for years was just absolutely miraculous. And BPC has made huge, profound impacts, even on people that didn't have quite a severe disease, but just in regulating gut function and helping, the soft tissue injuries to heal.

Peptides, Immune Support, and Brain Recovery

So GSK is the other one that can be really helpful if somebody has pain or, you know, has some sort of joint issue. And so those are in my arsenal. And if somebody has those particular issues, I jump to them, when they're available quickly.

And then from a cognitive perspective, the ones that stand out are cerebral Lyson, Sealink and C-Max. And simulation is very pretty specific. And this is an injectable, and it is helps with trophic support.

So with again that signaling for growth and neurotrophic support to grow new neurons have have more connections to to basically create more in the brain.

And as we age, a lot of the signals are seen to create less weight when we imagine ourselves at 21. This is when people, many people are in college and like retaining the ton of information.

It's really easy to learn and grow and create and get new skills. And what we want is more of that and cerebral essence and that signal, as well as, no tropics.

So this, this is the idea of creating better cognition. Just thinking more clearly and then also creating more memories. So cerebral Eisen is is great for that.

And then Sealink and C-Max are both intranasal and these ones are interesting because they help a bit with know traffic and, and neurotrophic support.

So that growth as well as cognition and memory. But then they also have effects like many of the these kind of signals that our bodies create, endogenously.

So our bodies create this category of hormones that Milano Quartet cortical waves I think, and that msh coming from the pituitary gland. So things like ghrelin and leptin are coming from here.

And in this category they, they help not only with no trophic and neurotrophic support, they also help with blood sugar management to some degree. They help with, clotting, blood clotting and so that vascular dementia and better blood supply or lower risk of stroke.

And so these things can be, cerebral latency link and Cmax and more specifically kind of for that cognitive function. But C link and Max has kind of these added benefits on the, on the side.

And even some neuro and some inflammatory and and immune regulatory properties as well. And it's great because they're intranasal. So somebody that doesn't want to inject themselves doesn't need to.

And they're, they're relatively available. My clinical experience has been that some people use them for a while, and then other people kind of get that hit from them and then don't need them long term.

So if that's a relief for anybody, usually when you're paying for them, that is you don't have to pay for them forever. You can take them for a bit, get the improvement and then kind of wean off of them.

And so that's how I use them in my clinical practice. And I love for you to I'd love to hear more. I heard when I was with you guys, somebody mentioned Fgo being really helpful for cognitive function.

So I really I'm here to learn from you as much as you are for me. Well, I appreciate that. You know, so, if you go back to the beginning, we talk about kind of functional medicine, and gut brain access.

And so then BPC 157 is one of these great peptides that comes from the gut. It's actually secreted, from cells in the stomach. And, there are some oral formulations and injectable formulations.

Interestingly, both can have an effect on the gut. And there are some rapidly absorbable oral formulations. The with the idea that it's going to get absorbed in the small intestine or have an effect in the small intestine and some long acting, versions with the idea that that's going to get more towards the colon.

And so then that can be helpful in terms of the BPC 157, sometimes people will do multiple doses in a day, so 2 or 3 doses in a day because it's a relatively short half life.

And and so then that but then BPC 157 also has the added benefit of having some benefits in terms of angiogenesis. And so then we know that it's going to and it's also tends to be anti-inflammatory.

And so it's going to have some anti-inflammatory and blood vessel health benefiting effects that the brain. But then it may begin to be at least play a part of our role in terms of GI stuff.

Leaky gut and then inflammation. And then within that there are different dosing algorithms. And so then there's even some crazy things, like, for example, you can do like an insulin pump and then put peptides into an insulin pump.

And interestingly, the one thing, if you do BPC one by seven and an insulin pump that you can do lower amounts because you're having a real low over a long period of time effect.

And that one definitely people will say, oh my God, my gut felt perfect, you know, and I've I've had that experience quite a bit. So, you know, that that one and the because in terms of, of dosing, because you've got that oral formulation that may be an interesting idea.

A lot of times, there are some, some pharmacies and then some people will combine, one of those, MSG type of peptides, TPV with BPC. And then that's a great combination orally.

Sometimes that'll calm down mast cell activation. And so it helps to calm down some of the immune cell, the, the immune, activation or inflammatory aspects of, immune stress in the gut.

And so then you realize, okay, just to get going, we're having this, this very functional medicine kind of gut brain axis, because fixing cognitive change takes such a, a total approach that it's not just going to be one thing.

The when you think of all things immune, then the one of the number one things you think about is, these chronic

either active or stealth infections, Bartonella, Borrelia, all of the tick borne and vector infections, chronic viral infections.

And then we're just having this conversation, but and, and in ten years, we're going to be having a long Covid conversation and cognitive change. I can't tell you how many people say, oh, yeah, I'm basically fine.

But my memory's not as good. Like, I've been hearing a lot of stuff. So it'll be interesting to see what the research and the science says around that to one that's been relatively unavailable, in North America.

But worth the podcast is worldwide. And, what I can tell you is you with to one, you really seem to see immune regulation. And so you were talking about like the RNA.

So which is a marker for certain forms of autoimmune, problems. If, if the inflammation is high, it tends to bring it down. If people's immune system is dysfunctional and not working well, it seems to bring it up, you know, and and so then that one is really an injectable.

And, we found it to be profound, helpful. And it's also we found to be fairly helpful for patients with mold. And so, so and, and it probably is going to be helpful for detoxing and kind of resetting immune status and a mold really mold create something called chronic inflammatory response syndrome.

And basically our anti-inflammatory strategy in the brain, which is somewhat dependent on MSH, this protein really gets depleted and it gets low, and it leads to an inflammatory process in the brain and cognitive changes probably on that spectrum.

And so then everything that can begin to regulate, thing, the immune activation and immune stress around that can be helpful. Our philosophy, our philosophy is this that, number one is and and that's kind of a good trajectory of the conversation is because number one is detox and these and so then if that was modeled that might be binding.

So taking things like charcoal and binders which are going to start to begin to regulate, you know, help just pull those toxins basically the charcoal or different binders, will bind onto a metal or bind iron to make a toxin.

And they're too big of a molecule to be absorbed. And so you pull them out of the body. Number two is regulating sort of immune response. And that one is important to do before you start to try to turn the cells on.

And then once once that's kind of stable. Then step three is to begin to think about the, the, the things that can stimulate mitochondrial function. So we have a lot on those diet lifestyle supplements side, on that.

But then human is, is mitochondrial peptide modestly and then FCL or three sort of interesting peptides that people can kind of cycle through that are mitochondrial stimulants.

And then a lot of times, well, the tag team that with NAD. And so then do a day of any D a day albumin and NAD and and kind of do an every other day strategy for a week.

And then follow that by maybe another week of, of nad NFTs. And so then kind of sequentially staging through different mitochondrial peptides, there's some that are not available that I think probably be interesting directions for people to kind of research in the future.

Things like SS 31, which is a mitochondrial peptide, that's probably quite helpful, but not not really available. Right now either. Yeah. We didn't talk about traumatic brain injuries much.

And just hearing you mentioned nad reminded me that that really sets people up. Right? We've heard the kind of idea around football and hitting our heads repeatedly, particularly in the helmet, and how this leads to a certain type of encephalopathy.

And then and then like essentially brain damage that causes dementia and personality changes and often violence.

Right. So we've heard that story. But even just hitting your head, certainly repeatedly.

But soccer hitting a soccer ball, that a lot of things people don't realize, getting hit in the head when you were a child and being in a car accident, these things can have a big and lasting impacts, and making sure that the brain has the resources to heal from that is important.

And I you know, if we can intervene in that 18 month kind of window pretty quick after a traumatic brain injury, again, my confidence is higher. However, we even see pretty impressive benefits.

And we do EEGs. The we use the wavy, but we do a wet EEG to get a sense of where people are and what, the voltage like how much energy is in that part of the brain?

What how quickly is the brain responding? And we see changes, after traumatic brain injuries, even ones that happened decades previously. So getting things like nad, faster cooling, we like to use phosphorus, serine, methyl B12, big doses of of omega three fatty acids.

And then also that contrast oxygen therapy that I was talking about the Levo two. And so going back and forth kind of like in ketosis where we go back and forth from burning sugar for fuel, the fat for fuel, we can exercise and go back and forth between positive oxygen and negative oxygen.

That increases something called the Hermetic effect. So we basically get benefits from stressing the system a little bit. Exercise is very similar right where we're kind of, damaging our muscles just a little bit, stressing them just a little bit so that we get more muscle, more capacity to lift something heavier.

And the same thing is happening with the VO2. You're essentially stressing the system when it's depleted of oxygen and then adding more oxygen going back and forth between that stresses the system so that we get more mitochondria.

Purcell so that that NAD works even better, has more places to work. It also kicked out senescent cells. So we get that recycling happening when there are cells that are kind of just getting by, not really excelling at their whatever their job is.

So, those are just a couple of additional thoughts. We do something slightly different for each person based on why they have dementia. And that traumatic brain injury piece is, I think, important for a lot of people.

I think that that's important. You know, one one thing that we started doing, and this has been a very good experience, is we do IV therapy and we and I typically we'll do kind of a relatively balanced.

So something that is has medium dose of vitamin C and vitamins and minerals and become plaques and B12 and followed by glutathione and other antioxidants and NAD so we kind of get, what do our, our total antioxidant and mitochondrial supportive eye be with maybe with or without peptides.

And then I afterwards I do a still light ganglion block. And then the stellate ganglion block causes the fight or flight nerves to go to sleep. And so then that causes is the carotid artery to get vaso dilated and it increases blood flow.

And in Lyme and complex illness, there's this evidence that people have decreased cerebral blood flow. And because, I think long term inflammation. And so then that's, that one's an interesting another interesting direction.

I think, you know, you guys have, a few things that I think are really compelling for dementia, right? There's there's been a trial, on plasmapheresis, and you guys offered that about a reset, and then there's still a ganglion block, which I think is profoundly affected, like you said, for PTSD and kind of quieting that over that sympathetic overdrive and helping to upregulate that parasympathetic state, which is that healing state.

And then in addition, of course, the peptides and then the NK cell therapy also is really compelling to me in terms of things that you guys do that I don't that I think would be just like could really increase the speed of the trajectory

towards healing this dementia crisis.

And so I, I'm always intrigued by what you guys have going on. But those three things in particular stand out to me. Oh thank you. Yeah, I know the plasmapheresis has been a completely game changer.

I think everybody that lives with that kind of changes and a little PTSD. And then the NK therapy, is that something that's not, we don't do here in the United States, but it is part of our international plan.

And, and, and I think she illustrates, you know, the fact that people do well with that illustrates what a profoundly important aspect immune stress and immune dysregulation is.

And so then diving into that when, when you need to I know that we have a time limit. And so I got to respect that, but it's just 100% delightful to talk to you.

And, I even found myself the other day in clinic. They were asking me a question. I go, I, you know, I, I, I don't know the answer to that question called Doctor Sanderson and see what she says.

So, it's it's just a pleasure. Where can people find you and, and where can they learn about what you're doing with the inpatient treatment? Because I think that that is the future of cognitive change.

So we're so sorry. So l c e r e.com. So Sarah first sun or solutions for Sarah the brain. And then at Marama experience ma a ama marama experience.com is our inpatient facility.

And yeah, we sign up for our email list. We've got lots on the agenda. We're doing a webinar or a free webinar series, called Marama at Home, where we just are trying to get caregivers the support they need to implement all of this at home.

And so and join our community because you're not alone. I think a lot of people start to feel isolated as they're caring for a loved one with dementia.

And you're not alone. There are lots of people, many more than me, who have lots of answers and help and support and resources for you. So please sign up and, keep in touch.

Okay? What you're doing is totally amazing. And so I'm grateful that you are a human being doing good stuff now. Thanks so much for having me. You right back at you.

Okay. Have a great day.