Introduction to Heather Sandison and cognitive health

– Welcome to another episode of reversing inflammation, summit body and mind longevity, medicine, I'm Dr. Stephen Sideroff, your host and I'm so pleased right now to have as our guest Heather Sandison heather is has created a Solcere health clinic and Maramawhich is focused on immersing people into a program that helps support cognitive and mental health functioning and this is such an important area.

I know we all have people in our lives who uh have been touched by this kind of issue as they age. So Heather, it's such a pleasure to have you here at our in our summit. – Oh thank you so much for having me.

You know, I saw the lineup and you have just a phenomenal superstar team here to share their insights and wisdom and it's just a privilege to be considered among them.

– Yes, well we do. So let's start by telling us how you got into this area. – Yeah, sure. So this work very much found me, I definitely didn't go to medical school imagining that I would help people with dementia.

In fact I had been told over and over again by very smart, very well meaning people that if somebody had cognitive decline or was going in the direction of Alzheimer's, there really was nothing that you could do.

And then on the other side of my naturopathic training where we're very much thinking about things from a complex system science perspective, from a treat the cause perspective, treat the whole perspective. I met Dr. Dale Bredesen or rather I heard a lecture of his at a conference and I was highly intrigued because he was describing bringing that complex system science approach to dementia and getting great results.

And so so although I was skeptical I went to his training and then was on the list of providers who had been trained by him.

Lindau2019s turnaround and the origin of the approach

And so sure enough I had people show up in my clinic and one of my first patients, her name is Linda. She came in with her husband and she had a moca score of two.

So the moca is the Montreal cognitive assessment that we used to quantify the degree of someone's cognitive decline and hers was quite progressed. So her handwriting was affected, she could only answer me with one more sentences with just a yes or no to very simple questions. And although you could see that she had progressed quite severely with dimension Alzheimer's um you could see the brightness of her personality. She had this guy, great big smile and bright clothing and this black leather studded purse and her husband was just so dedicated and much more confident in this bread is an approach than I was at that stage.

They took everything and ran with it. They dove in completely. They did not just dip their toes in the water with this approach. She got out of a multi bedroom, They actually just moved from their bedroom that was molded into their living room and they started ballroom dancing four times a week.

She got on the bio identical Hormone replacement, she got all of her dental work done. She got on all the supplements that I recommended. And they got into ketosis and they did it together. And just six weeks later her Moca score was now a seven. So this Moca scores on a scale of 30 and 30 is perfect. Normal is about 26 or above.

And when you're at a two, this is very severe disease. Now when you're at a seven, it's still severe disease. But it meant that she was talking in sentences.

It meant that she could bicker with her husband about something that had happened the night before her life had changed her experience of the world had changed in just six weeks.

And so when I saw this happened for Linda, my first thought was well wait, what did we do wrong six weeks ago? Did we? Was it a bad day for her? And this just a good day.

But no, her husband said how dramatically she had already changed. And what I realized by the end of that visit was if this was for Linda, what was possible for everyone else who was less far along the path of dementia.

Somebody who maybe had genetic risk but didn't even have any symptoms yet, could they prevent this from ever happening? And at the very least, could we delay progression And hopefully could we reverse it for even more people.

So you can imagine that from that moment I have essentially committed my life to changing the narrative and getting this type of mess Out there and to make it practical and accessible to as many people as possible. – Well, it's so interesting that you started with somebody who was so deficient as opposed to someone with a score, you know, in the low-20s for example. And that's great that even with someone like that you were able to achieve some sense of of improvement.

So I can understand how with that as your first experiment, you would be very excited about the potential. – Yeah and certainly my confidence goes up like Linda and her husband the more fully you dive in the more completely and comprehensively.

You can apply the protocol. The more confidence I have of course the younger someone is, the more confidence I have and then not necessarily chronologically younger. Right. The the younger their cells are, the the younger we are. And and really that's a big part of this approach. This is the longevity centric summit and it's about ourselves being younger, not just our chronological age.

And that's what makes everything kind of spin in this virtuous cycle rather than that downhill spiral. And then the other thing that drives my confidence is of course how far along in the disease process.

So when it's early on but still measurable cognitive decline it's much cheaper easier and simpler to get that reversal versus those later stages. – So these cognitive declines whether it's Alzheimer's or some other aspect of dementia. How does how does that fit into your particular notion about how and why we age and longevity? – Yeah, great questions.

So I think a lot of people assume that things go downhill as we age and I would like to just reject that premise completely. So there's a a great book by a woman named Becca Levy. She's a PhD scientist out of Yale and she wrote a book called Breakthrough Agent. Oh gosh!

Of course, now I'm going to blank on the name but it's essentially the premise of it. I'll remember the premise of the whole book is that our mindset as it relates to aging is extremely important and that we actually live seven years longer if we have a positive association with aging.

Mindset, aging, and APOE risk

And she describes aging in Confucius cultures like Japan and china and then also in the American deaf community where aged people are revered. So the older you are, the more wisdom and experience you have to share and that this is highly valued in those communities.

And when you see that you don't get the typical declines that we expect in a standard american culture of declines in measurable things like hormones and cognition in how much we exercise and all of these things when you expect that it's only going to get better.

That's actually what happens. And so these are really exciting insights, I think about how we age and the control

that we have. She also reports that in her research people with the A.

P. O. E. Four genes, this means that they have extra risk of developing dementia. I'll break this down and go on a tangent for a minute just so everybody understands what I'm talking about.

So the apoe e genes are associated with fat metabolism and there's essentially three options and you get two of them one from mom, one from dad, you can have a 23 or four and if you have twos you actually get some benefit, you get some reduction and risk. And if you have three you also have less risk.

But if you have fours, if mom or dad has given you a four or if you have a 44, a mom and dad have given you a four, you have a highly increased risk of developing dementia.

Um This risk can go up to 50% 1 in two chance of developing dementia in your lifetime. If you have a 44 and then if you have a 34 you can you have a third one in three chance of developing dementia where the normal population has a 13% chance of developing dementia.

And if you have a two in there you have about a 9% chance of developing dementia. So what we are essentially looking is that increase in risk from 13 to 50% with that we 44 status now becca levy in her book describes how that risk is completely eliminated If you have a positive positive association with aging.

So if you're channeling, I always think of channeling Betty white. If we can just channel that, imagine that we're going to live that life of humor and engagement and productivity and community into our 90s and beyond, then we can live longer, healthier, happier lives with better cognitive function.

– And this is ties into the growing information we have on epigenetic. So we're talking about how our mindset as an impact on that which then affects aging. I just published an article on how I thought that purpose is the ultimate and you it or lose it.

And so purpose feeds into that epigenetic model where we have the ability to influence our aging process. – Yeah, it's really phenomenal how much control we have over the aging process. So, her book is called Breaking the age Code.

I'm so sorry, I was blanking on that, but very, very much in alignment with what we're discussing here. I think another misconception around Alzheimer's that's really important to point out is that beta amyloid plaques have been sort of the smoking gun, that the issue that we point to as the cause of Alzheimer's and in fact, what we know about Alzheimer's is that that's not the full story.

Although there's clearly a correlation between amyloid plaques tell proteins and incidence of dementia. Those are not necessarily the causal factors and when we think about causal factors? These things are much more within our control?

Right, beta amyloid plaques, like, what is that? What does that even mean? How do I control that? It feels very much outside of us? And we're sitting here waiting for science to save us to give us that magic pill or that magic ivy. When in fact I think that's been a little bit misguided because this is a multifactorial disease, a very complex disease that requires a more complex solution to meet it. – Yes, I totally agree with that. And can you share your perspective on the role of inflammation in this process? – Absolutely. So again, you know, inflammation I think is a much better kind of explanation of Alzheimer's than certainly beta amyloid plaques are. However, even inflammation begs the question why what is causing inflammation. And so that's where I go back to this very systematic but more comprehensive approach that's described by Dr. Dale Bredesen who I'm sure is on your um on your summit, I hope um and essentially what we're doing is we're describing what are all of the things we're not only describing but assessing what are all of the things that might impact neuronal or brain cell function and how do we optimize for that?

So what are the toxins doing? What are there? Are there too many? Are there? Um is there are there too little right are we getting them in and out? Are they flushing through the system? So toxins infections, is there an infectious

burden that is causing inflammation?

Are there enough nutrients to get those toxins and infections and other things that might trigger inflammation out of the system and keep our systems even the basic metabolic waste that every cell creates. Can we get that out of the system so it doesn't get caught up in there and create inflammation? And then is there structurally, is there blood flow in and out of the brain? Right.

Can you get oxygen to your brain at night? Do you have sleep apnea? Have you been hit over the head with a baseball bat at some point in your life? I mean this literally comes up in my office and my practice and so certainly traumatic brain injuries will contribute to inflammation in the brain.

Inflammation and the multifactorial causes of dementia

And then also we talked about stress a little bit already, but stressors can also um having too much cortisol, although it's anti inflammatory over time can create um can create imbalances certainly in those stress hormones in the brain and reduce the size of the hippocampus directly. So there's a big connection between stress.

We've all kind of been in that situation of either not getting enough sleep or feeling under pressure and not being able to make our brains work right or we can't spit out what we're trying to say and many, many of us can relate to that experience of feeling under stress and not feeling like we can remember well and so those are that more or less that plus signaling hormones.

So things like peptides, stress hormones, sex hormones, vitamin D, thyroid hormone, all of these signals are really important. And then of course diet I kind of put in that category of both signaling and nutrients that we need to eat the right things beyond a relatively anti inflammatory diet or at least not a pro inflammatory diet so that our cells can be made.

They can use those building blocks to literally create the structure of ourselves in an anti inflammatory way. There's so many pieces of this exercise of course helps with with reducing inflammation and being enough stress, right? If we're couch potatoes and we're just laying around there's not enough stress on the body for there to be engagement that's going to keep us moving and going and blood flowing. Same thing with brain engagement.

We need enough of it but not too much. It can't be so much that we give up. But we want enough brain engagement that we that we work that muscle. – Well this is probably a good point, good point in our conversation to take a look at your program and you your program maximizes for supporting cognitive function and and in as well in slowing the aging process. So maybe you can share with us your approach and your program and the and the components of it.

– Yeah absolutely. So you know, I feel so fortunate to work with Dr. Bredesen and be supported by him as a mentor and to be so clued into his work. And so I have really done my best. I'm shamelessly riding his coattails here to plug the gaps of his work by making this more accessible and more more practical I guess for people because it is hard and when we talk about changing diet, changing the environment, exercising more um this can be a full time job scheduling a sleep study. All of these pieces require a lot of cognitive work and for many people with full cognitive capacity, making these changes in their busy lives is challenging. And so what we've aimed to do is essentially reduce the friction and I've done that in a couple of ways and one is through Marama which is a residential care facility for the elderly um located here in san Diego County, although we are quickly expanding. We're partnering with a group in Wichita Kansas.

We just announced that this week and so really excited to be able to help more people. We've had a waiting list for well over a year and this is an immersive experience.

So you you know, I get how challenging it is. I live this lifestyle myself and it can often feel like a burden, however it feels so good to be in ketosis to be eating good food to be exercising regularly and getting good sleep, having your brain engaged being in community, all of those things are so valuable and I love watching people, it's just an absolute pro privilege and so much fun watching people get the benefits of it and I get how challenging it can be to

do on your own at home.

So we take care of it for you when you or your loved one moves into Marama or our partner facilities. And that is just, I mean doing that and seeing those beautiful souls just thriving is the privilege of my life.

It's so fun and then we also offer the Marama at home course because not everybody can make it to San Diego right? There are all kinds of constraints. And my goal really is to make senior living facilities like that obsolete because I would love for people to stay at home in the fabric of their community, where the people they love right there be able to work, continue work. And also, most importantly, as I mentioned, my confidence is higher when people intervene in this disease process earlier on.

And so instead of waiting to need to go to a place like Marama, do all of these things at home. So we help support people um through that with the Marama at home course, it's just Marama at home dot com.

It's a 12 module course where I break it down and take you through everything that we're doing at Marama day today, we give you the daily schedules, tell you about the equipment we have and then you can create as much of that at home as possible and get all of the benefits there. We offer additional coaching and I will even go to people's homes here and there when, when I have time and when that allows and that's really, really, really fun for me. I absolutely love it. – Heather.

Let's let's go more deeply into some of the actual steps of the program so that people who are watching this can take advantage of this information. – Absolutely. So we're actually going to give you a free diet diet guide, the ketogenic diet guide and that will be available here at the summit and this is probably 50% of what we do. I think people get so much benefit from getting into ketosis. There's tons and tons of questions that come up around diet Now, I'm not suggesting that you get into ketosis forever.

But for somebody struggling with cognitive decline today, I would recommend being in ketosis for 3 to 6 months now, work with their provider to make sure that this is absolutely safe for you.

There are certain conditions like kidney issues, potentially if you've had gallstones or gallbladder issues. This can be a little bit more challenging and you might want to work with the help coach if your cholesterol is high, don't worry too much.

Marama care model and at-home support

We can usually actually get good results over time and lower your cholesterol through a ketogenic diet that includes lots of fiber, lots of veggies. So what we're looking for here is to basically flip the switch of your metabolism from burning sugar for fuel to burning fat for fuel and your brain loves this. So your brain preferentially will burn fat instead of sugar for fuel. And as we age, one of the things that seems to happen pretty consistently is that we lose insulin resistance and we lose efficiency when it comes to turning sugar or glucose into a. T. P.

Or the fuel ourselves run on. And so when we just change out the fuel, we get more efficiency in creating that fuel and creating the energy that our brain needs to run. And um through that there can be more repair, more regeneration, Clear thought patterns, less fatigue.

It's really amazing to watch. I'll tell you that some of my patients, they come in and they kind of look like wilted flowers and they get into ketosis and they just sort of start to blossom. They're standing up straighter.

You can see that there's more energy. They're much more engaged in conversation. It's really, really fun to watch. And so what we do there is its carbohydrate restriction. Many people will need to get to around 30 g of carbs restricted to 30 g of carbohydrates a day. And it's lots of emphasis on veggies, leafy green veggies, the non starchy veggies, your all of your cruciferous, your brussels sprouts your cauliflower brock, actually your chard kale arugula.

I mean the list goes on and on. I'm often in ketosis and it it feels great. Um and I don't feel restricted, heavy in fats, lots of coconut oil, olive oil and I don't have people restrict dairy unless of course they are sensitive to it.

Then of course, if you're lactose intolerant or otherwise sensitive to dairy, absolutely restrict that. And then plenty of animal protein, some nuts and seeds and all of the spices, basically.

Anything that won't raise blood sugar is on the yes list and there is a lot of yummy yummy stuff you can put on there and then. – Just to be clear ketosis, a keto diet is about shifting the body from burning sugar to burning fat, is that correct? – That is exactly right.

And so sugar, I'll interchange of use carbohydrates, sugar, glucose. Those can be anything from like skittles or a snickers bar to breads, pastas, even things like fruit that are often considered very healthy and I think fruit is very seasonal fruit, very healthy starchy veggies, very healthy, like beets and carrots and butternut squash, say very healthy things, but if we want to achieve the goal of ketosis, then what we want to do is restrict those carbohydrates or sugars completely.

– And so you're saying, I think, I heard you say this is probably the most important piece of the program. – It's certainly one of them. and it's also the most accessible because you can do all of this from home, you don't need fancy testing, you don't need anything.

It's just a commitment to eating differently. – Mhm. So I know you have, you've had different coaching programs and ongoing programs. Um have people been able to adapt to this and adopt this or do people struggle with it? What's your experience and how do you, the ones that are struggling? How do you help those?

– Yes, such a great question. Um again, it's just been a privilege watching people and learning together as they go through this process. Um then there's a mixed bag. So some people and I can't even always predict it. There's some people that just grab the bull by the horns and go for it and they are fully and totally committed and they just do whatever it takes to get into ketosis to optimize their diet, their sleep, their exercise. And it's really impressive what I see is that there are other people who kind of proved that the concept works because they go in and out of it. And we had a gentleman recently who, you know, when he's in ketosis, he remembers his grandchildren's names and when he's not, he doesn't and you can kind of see this switch go on and off.

And it really, I think is a resource utilization issue for him, particularly when he's getting those, that fuel to his brain, he can remember really important things and when he's not, he stops remembering. And so many people will report this of course the holidays come up and they kind of fall off the wagon or they're traveling, they fall off the wagon. But they get those benefits back often if they can get right back to it. – And so what you're proposing and suggesting for people that have mild cognitive decline. That's true for everybody in terms of, even if you don't have mild cognitive decline, it can prevent or postpone that I'm assuming correct. – Certainly that's what, you know, it's much easier to prove reversal than and then prevention right?

How just in terms of time scale, but certainly that's what I would I would propose is that yeah, we can prevent and and at least delay the onset of cognitive decline when people are adopting this, this diet and this lifestyle and and also I think doing the medical component is important. But it's kind of the icing on the cake.

The 80-20 is definitely in the lifestyle component from in my opinion and from what I've seen. So, um and and again, as I mentioned, when we have people with mochas in the twenties, we get complete reversal.

We see them go back to 30 go back to getting perfect scores. And so my confidence is much higher when we can intervene then um, and that you could almost consider prevention because they're dead diagnosis would be mild cognitive impairment and they're not progressing to Alzheimer's the way you would expect. – Right, right.

Can you go into a little bit more detail of the other components? Like what do you think is important in terms of amount of exercise, amount of sleep and any other parts of your program?

Ketogenic diet as the foundation

– Yeah, absolutely. So exercise is another one I love to talk about because there's a couple of misconceptions here. So I'm really proud of anyone who walks walking is amazing. I love it.

And if our goal is to reverse or prevent dementia or alzheimer's disease, we have to do more than walking, walking is not going to be enough. So what I recommend is kind of thinking of exercise in four categories.

Your aerobic, your strength training, your dual task exercise and I'll talk more about each of these and then your contrast oxygen therapy. And so at a very minimum you want to be doing aerobic exercise and strength training exercise and that aerobic exercise.

The definition here is going to come from the Framingham trial and this is 200 minutes a week at your target heart rate. So this is give or take four kind of 41 hour classes or one hour bike rides one our dog run kind of things.

You want to get your heart rate up to moderate rate and the way you calculate this is 220 minus your age and you take that number, your max heart rate and multiply it by 2200.75 or 75% and 750.85 85% of that max heart rate. And you get your target heart rate between 75 85% of that max heart rate. You want to be there for 200 minutes a week.

So if your walk does that than fantastic, you're doing good work. If not, then we got to up the ante and get your heart pumping a little bit more to get that extra blood flow to your brain. So that's aerobic exercise.

Hopefully many of you listening can check that box and you're getting that strength training is the next one. We want to be growing muscle because muscle sends a lot of those great signals to the brain like testosterone and BT enough to the brain to support neurotrophic effects so that both growth and the connections no plastic effect between between the different neurons. So we want to be getting those signals through strength training exercise. And this can be lifting weights.

There could be yoga or Pilates or anything that helps engage your muscles climbing. There are lots of functional fun exercises that different people can do.

And sometimes for some people it's chair yoga and for other people it's PT or OT exercises, there's a whole spectrum. We just want to meet you at your edge there and then dual task exercises. This is a little bit newer in the in the research and many people have not heard of this, but there's massive amounts of benefit of combining cognitive exercise with strength or aerobic exercise.

So for someone this might be as simple as going to a class like yoga Pilates, zumba something where you're being cued by the instructor. If that engages your brain significantly, you're not checked out.

Like if I go to Pilates and she's like bring your right arm down to your left hip. Like I can kind of be checked out thinking about work or other things that's not engaging for me. But for somebody else, sometimes it's really hard to put together those pieces of the cues while you're exercising.

That's great. That works for other people. What they'll do is they'll go for a run and they'll be listening to a podcast. They'll pause the podcast and repeat back what they just learned for someone else.

They might, you know, have a granddaughter quiz them on the names of all their great grandchildren or on the birthdays of all their great grandchildren or on the president's from start to finish or the 50 states and the capitals, that you can get creative math problems about how you engage your brain while you're exercising.

Now, neither of these are marathon. – What added mechanism does that engage. – my gosh, you'll have to interview Sarah McEwen because she's the one who did the research at the pacific brain Science centers and she is wonderful and delightful and could answer all of the mechanistic questions there.

I don't know exactly what's going on but I know that it works and that there's data out there that that proves this and there's there's good data from the T.

B. I. Clinics and also from Parkinson's research. This dual task. So the if anybody's looking for some of these, if you google or go to Youtube and search for dual task exercises you will see a bunch of examples come up, get some

good ideas. Yeah the area is contrast oxygen therapy. And so we use a device called the Live 02 essentially what we're doing is recreating exercising at altitude and then exercising at depth really because you're going back and forth air air that we breathe the day to day is about 20% oxygen. And through the Live 02 system you concentrate oxygen and get it up to about 80% oxygen.

Um what you're breathing while you're exercising and then you go to negative and you go back and forth between positive and negative and that negative oxygen is about 8%.

So you go from 80% to 8% when what we typically breathe is 20% and in going back and forth what you get is Vesa dilation. Um So all of your blood vessels get really really big when they're feeling starved of oxygen.

This is as the carbon dioxide goes up and then you flip the switch and you get this concentrated oxygen that goes into the lungs and then it's very quickly able to glom onto those red blood cells and deliver oxygen to the tissues through those great big expanded blood vessels. So you get pressure changes.

You get a little bit of stress on the system. I'm sure you have lots of speakers discussing the har medic effect. So you put a little stress on the system and what you expect is a more resilient, healthier system.

And part of that is by getting rid of senescent cells and also signaling the system to produce more mitochondria. Which is where that fuel or a T. P. Is created in the cells.

Exercise, dual-task training, and contrast oxygen therapy

And so as we stress the system a little bit by going back and forth between positive and negative two. We get some of those amazing benefits. – And lastly, what's your recommendation with regard to sleep?

Because there's a lot of research out there showing that sleep deficits have is a great liability. – Yeah. Yeah. So one of the things that we test immediately on almost everyone is for sleep apnea. So certainly I recommend everyone prioritize sleep and get the amount of sleep that allows you to wake up feeling rested in the morning.

And so if that means nine hours for one person or 10 hours for one person, maybe even temporarily. Certainly for teenagers. Um then enjoy that, get that rest if for you you've not just gotten by on seven hours.

But if you can wake up without an alarm feeling rested after seven hours, that might be enough for you. Um I have had the pleasure of interviewing Dr. Michael Bruce. I don't know if you're having him on.

Um but he's the sleep doc and he talks about the importance of consistency, going to bed within about a 15 minute window the same time every night. And when you're not basically creating jetlag by going to bed at nine am nine PM one night and two a.m. The next night when you're not shifting your bedtime to dramatically, you start to get much more efficient sleep.

And so getting the right amount of sleep is certainly important prioritize sleep. Thinking of it as an investment in your health. And also being absolutely sure that you don't have sleep apnea. And if you have any amount of sleep apnea, even if you've had a sleep doc tell you that it's mild, I recommend treating any ethnic events um relatively aggressively through either mouth tape. Um You know, if you snore, maybe the nasal breathe right strips. Actually do just use this omni fix and the breathe right strips because the adhesive on the generics, it's not great. And so they don't tend to work as well.

Um And then there are mouse guards that you can use from specialty dentists. And then of course the CpaP for the paps, the alternating pressure devices that you can use for sleep. And i if you have apnea please use that.

If you have one that's been sitting in the corner and you can't get it to fit right or you you haven't been using it regularly. Please please please get that fit.

Get a different one. Do what you need to do to aggressively treat that sleep. Because if you have apnea, if you're

having those events at night, it's essentially like having mild brain damage every night.

And as a brain doctor, I'm not okay with that ever. – Well that's very good and useful information. Do you have data on results that you've gotten or can you share any data that's out there on reversal of Alzheimer's slowing it down? – Yeah, there is really exciting data.

So um Dr. Bredesen and he His team cat tubes is the primary author on that. The first author on the paper that was published in July of 2022 in the journal of Alzheimer's disease. And what they showed was that 84% of participants who did this medicine approach had a reversal, measurable reversal in their cognitive decline in their in their dementia.

And I would say that so we took a group of cohort in my office and we're looking forward to submitting that paper very soon. Um we took 23 participants through six months of intervention. The medicine paper they did nine months of intervention. We took participants with Mochas between 12 and 23. So this is definitely measurable cognitive decline, significant measurable cognitive decline.

And we had um results that were relatively similar. So, and what you would expect, it wasn't quite at 84%. But um we're really excited to publish that work and I'm really excited to be able to say publicly exactly what my expectations are when someone with a mocha score between 12 and 23 comes in in six months and the results that we get. – That's great when you can share these results, because it's really encouraging to someone who has this kind of situation.

And I'm wondering given this evidence, given this approach and how it seems to be so helpful why and and and also given how everybody is so fearful of Alzheimer's, why isn't this information more uh shown on the news programs and people being made aware of it? – You know, I like could pull my hair out.

Um there's actually, I have it right here. There's a book called How not to study a disease. The story of Alzheimer's, it's written by a gentleman named Carl Harrop and it essentially answers exactly this question.

We have been um down a rabbit hole chasing this hypothesis that beta amyloid plaques are responsible for Alzheimer's and it's a dead end. It's not getting us where we need to be.

Um There was just this week, there was another monoclonal antibody that came out and it's like promising results. You know, this is all over the news what it does and it's at its best is it slows the progression of a torturous disease essentially.

They're saying here pay tens of thousands of dollars a year, Medicare for this, taxpayers for this very expensive drug that makes the torture for people not just the person suffering with the disease, but also their caregivers and their loved ones and their families that are on this long path to go goodbye. It says enjoy this longer, awesome. Like what value does that bring to society?

I get so upset about this, I'm sorry. And then I just get back to work because I can't focus on this part. Too much. So many dollars, literally $1.6 billion. Last year alone in 2021 alone went to studying the beta amyloid plaque hypothesis and much of that.

Sleep optimization and treating sleep apnea

Um some of that, you know, I I don't want to overstate it, but much of that was based on a 2006 paper that was published by nature that said that this these amyloid plaques were the smoking gun connecting them to cognition.

Amyloid plaques have been used as a surrogate marker. What do we really care about? We care about someone's ability to use the bathroom on their own to go grocery shopping, to drive, to maintain an independent life, to have a conversation with their friends, to remember their Children's names. That's what we care about.

We don't really care how much beta amyloid plaque there is unless it's connected to cognitive function. And there

was a paper in 2006 that was published in a mouse trial out of the University of Minnesota that connected cognitive decline with Amyloid plaques. Well, we found out this summer that it was completely fraudulent.

It is maddening to think about, you know, and there's good and bad actors in every field. But to think that so many taxpayer dollars have been dedicated to this hypothesis.

When it's based on fraudulent data, you have to hope that there's something good that will come out of this amyloid plaque rabbit hole that we've spent so much time and smart people's money and energy on. But I don't know like the 99 point 6% of the research trials that are done on that they fail. What are we doing, what are we doing? I just don't understand.

And Carl Harrop in this book explains how over and over again. First with always Alzheimer in 1906. Um there it was basically a marketing ploy that was one case study. It was one individual and um Alzheimer's his mentor published A textbook and he had a new textbook psychiatry is what it was called and that was published in 2000 or excuse me in 1907 I believe, 1908 and he needed new information to put in the textbook.

So he took that case study and put it in the textbook, you guys both know the medical world, you don't put case studies in textbooks, you put the data in text books after it's been validated and it's gone through scientific rigor.

So that was kind of the first elevation and then several times since then for very political reasons, for marketing, really not for scientific reasons.

Alzheimer's has been elevated um in a way that does not serve the public and people who are suffering with this disease through through multiple channels.

And I could talk about this for way too long. – Well, first off, I'm glad that you are supporting a procedure, a way of doing this. That actually shows benefit and shows great promise.

Um and so I really appreciate you coming on our program today, our summit to give us the audience, all of this very valuable information uh share with the audience how they can reach you um and where they could find your programs and take advantage of it. – Yes. Marama, M A R A M A Maramaathome.

Research results and critique of the amyloid focus

com is where you can find the coaching program and the course on how to develop Marama at your home or if you're interested or you have a loved one who you think would benefit from living at Marama residents. It's Marama.

M A R A M. A Maramaexperience.com and I'm looking forward to hearing from you and we'd be delighted to be of service. – And you also earlier mentioned something that people can get as a free bonus here. Can you mention that again?

– Yeah, absolutely, so like I said, I think diet is probably 50% of 50% of the heavy lifting of this approach and the ketogenic diet highly, you know, plant involved ketogenic diet is what I think works best.

And so we're going to give away a free keto diet guide and you'll have access to that through the summit and I wish you well and please send us any questions you have about that. We have coaching available if you want to just dive into the diet piece as well. – Great, that's beautiful.

Thank you so much Heather, I appreciate all of the valuable information you've given to our audience and look forward to hearing more progress in your approach.

– It's always a pleasure to connect with you. Thank you so much for having me, Stephen.