The Blood Test That Can Show Alzheimer's Risk 20 Years Before Diagnosis Transcript

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Summit Introduction and Guest Welcome

Hello and welcome back to the Future of Menopause Menopause Medicine Summit. We changed the name this year. This is our fifth year and I keep stumbling on.

The name used to be called Mastering the Menopause transition. Now we're the future of menopause medicine. And I think today's talk is like so right in line with the future of menopause medicine.

And many of you probably already know doctor Dale, Bredesen, he is just a pioneer. He's a New York Times best selling author. He created the breed and protocol, his work, and how we think about Alzheimer's and cognitive function has just transformed so many lives, so many clinicians lives, who then can go use his work to help their own patients.

And so I just have there's so much good to say, but I want to get to the meat and potatoes of what he's up to because there's some exciting stuff. So I've been doing this menopause summit for five years and you have been on my list.

And so I'm just so grateful that we finally were able to synchronize schedules and have you come join us here on the summit. So thank you so much for being here.

Thank you so much. Doctor Steele's great to talk to you. Yes. So let's just jump in. You were starting to tell me that there's new stuff going on. And for anyone who doesn't know who you are.

Why don't you just give a brief introduction of your work and what you're doing and why? Why was it so important for me to have you come and speak about brain health and Alzheimer's on a menopause summit?

Yeah. Thank you. So, yeah, I ran a lab for 30 years. I'm a neurologist and neuroscientist by training, and we studied for 30 years. What are the molecular fundamentals of neurodegeneration?

Why do you lose synapses? Why do you lose neurons? As you know, this has been the area of greatest biomedical therapeutic failure. As people often say, everyone knows a cancer survivor.

No one knows an all timer survivor. So whether it's Alzheimer's, frontotemporal dementia, Louis body disease, cortical basal syndrome, progressive supranuclear palsy, ALS just go right down the list.

These are all untreatable terminal illnesses, and about 15% of the population dies of Alzheimer's. So it dwarfs the pandemic about. Oh, you know, over 1 million people died, as you know, during the pandemic from Covid.

But we have of the currently living Americans, the statistics say that about 45 million of us will die of Alzheimer's.

Bredesen's Neurodegeneration Framework

So it's it's a horrible situation. And so way back in 2011, we kind of came to the conclusion, after all this work with fruit flies and transgenic mice and cells and all this, that all timers have been kind of misunderstood.

The idea was that, oh, it's a misfolded protein. It's reactive oxygen species, it's herpes. You know, there are dozens of theories about what it is, but none of them has ever led to improvement.

What we saw is that you have this remarkable synaptic network. You have about 500 trillion synapses in your brain, and that this is really a network insufficiency.

You know what's happened as we've evolved over the years, you know, from our ancestors, we always evolve toward better performance at the expense of durability.

So we have these incredible brains so you can store more in your brain than over 2000 home computers. Imagine lining up 2000 homes, and you can store more in your three and a half pound brain than to over 2000.

So it's incredible what humans can do. Similarly, you know, there's a subnetwork that's for motor modulation. That's the one that fails in Parkinson's.

There's one for power amplification. That's the one that fails in ALS. So you can see what what Alzheimer's really is is a network insufficiency okay.

So there's all these things that are on the supply side including hormones of course trophic factors, nutrients, oxygen, mitochondrial function, blood flows.

Go go through the list, dozens of things. Then there are dozens of things on the demand side. So if you've got inflammation, infections, that increases the demand on that system.

So as soon as you start taking the supply to low and the demand too high. What do you think happens? You now back down on the number. And if you don't understand that and you don't look for the right things, you just keep doing that.

And so people end up with dementia and death. So we started saying, okay, if that's the case, could we simply evaluate all these things, increase the various supply pieces, decrease the various demand pieces, and actually turn things around.

And so I saw Patient Zero very first one after we had been turned down for a trial. Because this was too complicated. It was more of a precision medicine or functional medicine sort of approach.

And of course the earbuds always say, we want you to do one thing. Well, this is not a one thing disease. This is a network. And you don't you don't deal with a network with a hammer.

You deal with it tweaking, tweaking here and there and here and there. So Patient Zero came to see me in April of 2012. I was shocked when she got much, much better as she said her memory improved was better than it had been in 20 years.

She was 67 at the time. She's now 82 and she's because she was just ready to turn 68 when I saw her. She's 82. She is doing great. She just walked across the United States from the Pacific Ocean to the Atlantic Ocean.

You can see this if you go to Judy Walks and amazing. And she is now going to walk across England next month. Oh my God. So yeah, she's she's amazing.

And so we've now had thousands of people come through this. And this is a precision medicine type of approach. So you have to look at and the big ones as you know, are anything that creates inflammation, any sort of systemic infection, poor oral microbiome, chronic sinusitis, leaky gut, tick borne illness, any of those sorts of things.

Metabolic syndrome is a big one. And then the second one is anything that creates toxicity. So then that's the three is, you know, inorganic organics and bio toxins.

And then the third one is reduction in energetics. So poor blood flow, poor oxygenation sleep apnea a very common contributor. So we determine all of these and then we address what is there.

So it's personalized. And we've now had done three trials all of them extremely successful. You can read. The first two are already peer reviewed and published and online.

The third one we just posted the preprint. And actually the third one we compared the outcomes. This is a randomized controlled trial. The first two were proof of concept and the.

We compare this to other trials looking at Cohen's d which is an effect size. So it's what's the effect size of the interaction. And the thing that came in second, we were 90 above that and everything else was lower than that.

So it was by far the biggest impact on cognitive decline. And we did the same thing as other trials. These were people who had MCI and early dementia, which is kind of the standard now.

So to be fair, we didn't take people who were in end stage dementia. And we encourage people, please come in early. We recommend everyone who's over 35 get evaluated.

And look, if you're 65 and you're doing great. Don't wait. Get evaluated. I'm now 74. So I just had my blood test. I just had you've got now biomarkers that weren't available even a couple of years ago.

So you can check your towel. 217 your AP, your NFL. And you can see it's just like a hemoglobin A1. See. But it's for your brain instead of for diabetes.

So this is a new era share. And this is something we've never been able to be done before. We don't have to wait for this to catch up with us. And of course, Bart is a huge player.

And if you've got a moment, I'd like to tell you about one specific syndrome that is very closely related to yes, please, please, I'm all ears. The one thing that we saw in actually published this several years ago, we started seeing people.

These are almost all women, and they're all from the late 40s to the late 50s, typically around the time of perimenopause, menopause or shortly after menopause.

And they were showing up with a syndrome. They ended up having Alzheimer's. But the syndrome was atypical for Alzheimer's. Often it would start with depression and so they would be treated for depression.

They say, oh, you just have depression. And then they would say, wait a minute, this person, they're having trouble with their cognition.

Menopause, Alzheimer's Risk, and Inhalational Causes

They often would present with a non mystic about two thirds of people with Alzheimer's present with memory loss, but about one third will present with executive function or prosopagnosia problems.

Recognizing faces or problems, word finding, navigation, things like that. And so many of these people were coming in with problems with executive function.

They couldn't plan, they would lose their jobs because they couldn't plan things anymore. And so when they started evaluating, they said, hey, what is going on here?

They end up with Alzheimer biomarkers, Alzheimer Pet scans. So these people do have Alzheimer's, but is an atypical form of Alzheimer's that occurs with menopause and often starts with depression.

Interestingly, as you know, ApoE4 is the common genetic association with Alzheimer's, and that represents about two thirds of Alzheimer's. And of course, women also represent about two thirds of Alzheimer's.

But these people, often they would be ApoE4 negative, not all of them, but they're instead of having mostly ApoE4 positive, it was about it was more like about 5050.

So it didn't seem to be a big increase. So many of these would be a 33 that weren't thought to be at increased risk

for Alzheimer's. Nevertheless, we're coming in at 52 is a kind of the most common age.

I would see them and they were coming in with you. I can't work my iPhone, I can't plan things. And when we would look at them, they would often have very significant atrophy in the brain.

And those people turned out as we started studying them, they turned out to have what I labeled inhalational Alzheimer's disease. So these people all have turned out to have mycotoxin exposure and or tick borne illness.

And they they can do very well. They have relatively young, healthy brains. Otherwise if they get with the appropriate detox, they get the appropriate treatment.

If they have tick borne illness. And bright really helps them a lot. And as you know, the pregnancy, the progesterone is particularly helpful for detox.

And of course the estradiol particularly important for hippocampal support. So these things are important, you know, and as we're starting to go through all the data, one of the most important mycotoxins is okra toxin A and that one's made by Aspergillus or Penicillium.

You know, most of us don't know if we have exposure to that. We don't know if we're living with Penicillium and Aspergillus until we now start having some problems.

And it turns out that okra toxin A, which the mechanisms are fascinating. It is an inhibitor of protein synthesis. As well as preventing the re-up take of glutamate which causes this excitotoxicity that, by the way, excitotoxicity has been known to be part of Alzheimer's for years.

In fact, that's how Manticore works by adjusting that down. So these people have this exposure and you can get this through inhalation. You can also get it through ingestion.

So eating the wrong things. And then of course you can also get it a third way from having endogenous mold in your sinuses or in your gut is typically where these hang out.

So it's very important to find out if you do have exposure to this. And the okra toxin A turns out to be a hippocampal neurotoxin. So it actually does impact especially the very area of the brain that is associated with Alzheimer's disease.

So I think it's very important for people to be aware of this. So they catch it as early as possible. You know, you have someone who's telling you, I'm really depressed.

I'm 52, I'm going through menopause, I'm really depressed, but I'm also having a little trouble at work. You want to jump on that and find out if this is what's going on, because it's so treatable.

And as you know, like any other chronic illness, the longer you wait, the harder it is to get things reversed. Well that's fascinating. So how are you testing okra toxin? A?

Are you doing urine testing? Are you doing antibody testing or how are you both. Both. And we've really followed you know, we've really followed Doctor Richie Shoemaker and Doctor Neil Nathan and a number of the patients that I've worked with.

We consult with Doctor Nathan because he's such an expert in this area and he's had great success. And of course, he's written a number of books on things like the the healing, the sensitive patient, that sort of thing, and which are, which are so important in this whole field.

He's actually got a new one coming out. So the, you know, understanding this, and we typically do it by urine, as you said, urinary mycotoxins. But it's also helpful sometimes to look at the antibodies in the blood as well and get an idea, you know, where are you living.

Because so many of us don't realize. And, you know, we've had a number of people where they improve and they go. We had, for example, a woman recently where she was on for six years and did absolutely great, and then she really clearly had some back step, some decline again.

And I was like, what's going on? Well, it turned out she had a reexport. And so she had had new leaks in her roof. And when they identified those and address those and she then got back on her detox, she's done very, very well once again.

So these, these things, it's important partly because standard of care medicine has not yet recognized this, despite the fact it's a very common contributor to cognitive decline.

And so, you know, more and more data are coming, but the associations are undeniable. When you don't treat this, you don't see improvement. When you do treat it as part of an overall precision medicine protocol.

You do see improvement. And I see okra toxin A is epidemic. It's almost like if I don't see it in a urine test, I start scratch. Like, that's weird because I just see it.

It's in everyone and it is. And there's such miskin like, I live, we're here in Arizona and so many people think, oh, I'll move to Arizona because it's dry and there's no mold.

And we have a huge problem with mold here in Arizona. Well, of course, Doctor Ackerley is right there with you in Arizona. And she is a, you know, a real world leader in mycotoxin related illness.

Yeah. So I want to just go back because you said something really important. I just want to have you say it slower so the ladies can write it down. You mentioned those couple of blood markers that they could ask their doctors to run.

Yes. So it was the 17. Yeah. So let me explain those because they're actually really important and they've just become available. I mean, I remember, you know, over 50 years ago when hemoglobin ANC was first being used, right?

And everyone was like, hey, wow. We can we can now look at this and get an idea relatively early. And of course later. Then people started looking more and more at fasting insulin.

So you can look even earlier. So are what's happened is the markers where you used to have to do a spinal tap and you know, who wants to get a spinal tap every few years?

I don't. And so the idea now is, hey, will these things actually show up in the blood and we can identify them? And now there is a tremendous amount of work, multiple multiple publications on association.

And so here's what's happened. If you look at and there are really four major biomarkers, if you look at to 217, that will tell you if it's in a specific range over a certain amount that you have amyloid, the association is with the amount of amyloid in your brain, which isn't a perfect marker.

The amyloid is an antimicrobial peptide. It's there to fight the pathogens that you've been exposed to. But it's telling you, you know, this is you're on your way because it does decrease your synapse number.

It does bind to complement C1. Q it is there. It can have an inflammatory effect. It is a synaptic removal effect.

Blood Biomarkers for Early Detection

It is a mitochondrial inhibitory effect. It is it interferes with insulin signaling. So it is part of your immune system so that you can get an idea. So so tau 217 is fascinating because tau is one of these proteins that has multiple jobs.

It's a little bit like if you go back to the Revolutionary War, remember the Minutemen. So these guys were there as

farmer or as blacksmiths and then boom, grab your rifle or go out to fight the British.

So this is like Tau. What Tau does is it's normal day job is to batten down. It's a it's like bolts on your microtubules. So when you're holding and you're putting your neuritis out and you're making these stable, you put tau along these things.

Now what happens. Pathogens come along. Oh my gosh. You got to now bring your immune system in to fight these things. So you phosphorylate your tore. It changes its charge.

It changes its shape. It pops it off the microtubules which then can can retract. And it now becomes the phospho Tal becomes an antimicrobial protein.

So it is involved with killing various pathogens now. So you can pick when that phenomenon has happened. And literally what we found in the lab is you literally have a whole set of things for a mode that is connection mode and a whole set of things for protection mode.

It's no different than going from sleep to wakefulness. A whole set of things change. You're in sleep mode because you do certain things well in sleep, such as detox.

Now you're in wake mode. You do different things very well in wake mode. Same idea here. There's a whole set of things that happens in connection mode.

You're making new connections, you're maintaining them all this sort of thing. But oh, you've now got all these pathogens. You're going to have to put that aside for a moment, unfortunately, and you're now going to have to go into protection mode.

And that's what's happening in Alzheimer's disease. You are chronically in this protection mode. So you are making amyloid. You are making phospho tau.

You are trying to go after these pathogens. You are changing. You are reducing the trophic side of things. Unfortunately, to use all of your wherewithal now to fight these various pathogens and insults.

Same thing. If you don't have enough support, you don't have enough blood flow, etc. you can't maintain that connection mode. So that's so. So now what we're picking up in the blood is one of the sites.

And by the way, there are multiple sites on Tor that become phosphorylated. But 217 happens to be the one that is most associated with amyloid. Now when you get even beyond the part that's associated with amyloid, now it's associated with amyloid and tau tau these the tangles.

So it's actually saying not only have you had to make amyloid against these things, but you've taken that next step toward a pro-inflammatory state, which is going to be more associated with cognitive decline.

So that's why if you see it over the years, you can see it early before it goes up very much and we see it. We're able to bring it back down. You don't want to wait for it to be super high.

So that's one thing that's so helpful about. And it's specific typically almost always Alzheimer's, although there are a few other things that can bump it up.

And the ladies can ask their regular physician to run this at LabCorp. You can. So to be fair, LabCorp has a knock off the ones that actually the guys that actually did all the research on this and have published and have done by far the most validation and have the most sensitive test, that's neuro code.

And the easy you can get that directly. Actually, you can actually get that directly if you go to get a brain scan. So that gives you three things. So phospho Tal which is about Alzheimer's and pre Alzheimer's.

Then the second one is so that's glial fibrillation acidic protein very much complementary to the other one. That's not coming from the neurons that's coming from the the glia.

And it tells you that there's inflammation and attempted ongoing repair in your brain. A very good thing to know. It's a very early marker. So if you're a GFA is bumping up but your towel is still normal, okay.

Something's going on in the brain. It doesn't tell you what it is, but you need to look further to see what may be creating some inflammation. The third one is NFL neuro filament light, and that one will tell you if there's ongoing neuronal damage.

So for example, when I see people where all three are high, they have very active Alzheimer's. But I'll often see people where the Tao is high. But the gap and the NFL are low.

So you have a more quiescent form. And let's get in there and make sure that you turn things around. The fourth marker is a beta 42 to 40 ratio. Now the issue with that one, although it provides complementary information, the issue is there's very little change in it.

Whereas the towel it's a robust test. The A beta 4240 doesn't change much that one. It goes down when it's abnormal, but it is an early marker. So some people will include that one, others will not.

But those are the four major ones. And the great news is, unlike even a few years ago, there are now blood based biomarkers that you can get to see if you're on your way.

And again, just like everyone should know their hemoglobin A1, everyone should know their tau. 217 if you're over 35, just get it every five years. You know, to do it every five years is not onerous.

And you'll be able to see, oh, wait a minute. You know, things are things are not looking as good as they were. Because the great news is Alzheimer's disease doesn't come on overnight, as you know.

And so we now know that it starts the pathophysiology starts 20 or more years before the diagnosis. So I'm asking for myself as a doctor and other doctors are listening.

And then for patients who are listening, we shouldn't be running these through like LabCorp request we should do get a brain scan. This neuro code, it's going to be more accurate.

Is that what I'm hearing? It's more sensitive. It's more well validated. Absolutely. Great. But, yeah, you can do it. You know, you can do a quick knock off if you do it through the standard.

Yes, but this is the gold standard. And these this one, this one also. The other thing is this has several things that the others don't. So this has a report generated that it will explain all the pieces to you.

Assisted Living Reversal Program

It also if it's if you have even mildly abnormal, you will get a call from someone to say how can we help you next? Nobody else does that besides the, you know, besides what was set up with neural code.

So that's why we work with them. Because, you know, we had our choice to work with everybody. They're the ones that have the best test. They're the ones that have the best follow up.

So that's why I recommend this. But yeah, you can do one of the others if you like. Fantastic. Okay. That's very, very valuable. So we were talking before we started filming and I think it was some important you were mentioning a study going on at the assisted Living.

Yes. And I'd love for you to share that with us. Yeah. So, you know, as a neurologist, the common story I would hear was someone would go, they were having a little bit of trouble.

Then they would say, okay, I'm going to go to System Living and boom, they just they fall off as you know, they would just fall right off the table. Things go down. It's you know, it's stress.

It's a new environment. They are often given zombified drugs. As you know, the circadian are changing. The diet is horrible. It's an absolute mess. And people just decline.

So the question is can we do better? Shouldn't assisted living be much better? So several years ago, Dennis, who is the CEO at a facility in in Fresno, amazing guy.

And he actually heard a couple of podcasts that I did and said, wait a minute, you can actually do something about cognitive decline? Wait a minute. So let me do that for the people here.

So he then started looking into this. And when we treat people we typically go, there are seven basics. And then there are two specifics. And the seven basics are, you know, plant rich, mildly ketogenic diet exercise.

You want to have both aerobic and strength training sleep. You have the, you know, the four key targets. You want to have at least seven hours of sleep, at least 90 minutes of REM, at least 60 minutes of deep sleep, and at least a SpO2 of 94%.

I checked mine every morning. See how I did last night? And then you want to have stress reduction brain stimulation. You can do with red light or brain train or things like that detox and some targeted supplements.

And you know, supplements aren't a cure, but they are helpful when you're looking at people who have low omega threes or low vitamin D or low zinc, which is so common, low magnesium, another common one, and so forth and so on.

The armamentarium is huge now and growing for what we can do. So Dennis said, you know, I got to do this. And I should mention, you know, the specifics are infections, what's causing inflammation and toxins.

And we want to address those. Then it's going to be different for each person. So that's the overall idea. So we started a program there at the vineyards.

And they just had the cohort what I call cohort zero. So it's the first group of ten. And he actually has chefs that are now doing a what we call keto flex 12 three.

It's a plant rich, mildly ketogenic diet. And by the way, we've just published a paper on this because it's had such good effects on your support, on your metabolic flexibility.

As you know, you need glucose or ketones. And many of us after 40, we're not utilizing either. And in fact, you look at a Pet scan for Alzheimer's, that's what the signature is, the lack of glucose utilization in the temporal and parietal regions of the brain.

So there's your signature. So we can restore that. Both the ability to utilize ketones and the ability to utilize glucose by having an appropriate overall protocol.

So he's got a couple of wonderful chefs who prepare this wonderful stuff and these people. So the first six months now this is a 12 month program, but we just got the data back from the first six months.

And it's absolutely striking. So they had dramatic improvements in their insulin sensitivity. Their homa IR on average went from 3.0, which is abnormal, to 1.29, which is completely normal.

It was striking and they lost weight. Their cognition was better. So their memory scores were statistically significantly improved. Their overall cognition was statistically significantly improved.

So multiple metabolic markers. So I went down there to visit them just last week and sitting in that room. So Teles

ten people, each one of them went through their own personal stories.

We have some film on this, so it'll come out as being edited right now. So you'll get the snippets and stuff. Wait till you see this. It's incredible.

One guy said, I've had diabetes for 30 years, gone. Another one said, you know, my memory is so much sharper than it's been. One woman said to me, I came in here as a fat, old ugly lady, and I now fit into the dresses I wore at my wedding.

I mean, just to hear these people, and they're all happy and interacting with each other. I never thought I would see that at an assisted living facility.

And, you know, I want to give great credit to the doctor, Heather Sanderson. Heather came to our course when we first started this years ago. She is a fantastic NPY and doing great job at Salisbury with her partner with her business partner, Doctor Rachel Houston.

The two of them are fantastic and doing. You know, I always follow all the outcomes. They're getting great outcomes on their phones. And so she had the idea years ago for Marama, which was an assisted living facility.

Now Marama has been sold in closed unfortunately. But she's going to open another one, I hope. But she was really the the vanguard and said, you know, we should be doing this.

And she got some wonderful, you know, some wonderful improvements there. But nothing was ever published from what happened at Marama. So we're very interested.

Of course, you always need to show proof, you know, is this just a fairy tale or is something really going on? But when I saw the data and then I listened to these people and there were people in the room as they were telling their stories that were crying, because when was the last time you went to an assisted living facility and people said to you, I'm so much better than when I came in.

I mean, this is within, you know, my hope is within this next few years, everybody at assistant living Facilities will be doing this sort of thing because it really does make a difference.

As you know, you eat a lot of junk, you sit around, you get depressed, you do nothing, and people give you these drugs to quiet you down. Things don't go well.

That's not a surprise when you do the right things and you're getting the right sleep. And they're working with the health coach. The health coaches make a huge difference.

They worked with Lynn KMS, who is a fantastic health coach, and with Wendy Davis, who's a fantastic nurse practitioner, and these guys, they had the whole team there.

They had the right chefs, they had the right coaches, they had the right, the right nurse practitioner. They just turned around and did so, so well. So it's great to see.

And this is proving to us that we can all do much, much better. And of course, when the families come in, instead of them seeing decline, they're seeing improvement.

Like, wow, you know, my mother still recognizes me, you know, that sort of thing, or my husband still recognizes me or my wife still recognized me, what have you.

And so it really is a heartwarming story to hear these guys. And by the way, people would say, not only did my memory get better, my arthritis went away in our we just finished a randomized controlled trial for people with MCI and early Alzheimer's at six different sites around the country.

And that was one of the things that Doctor Kat Toups was, who was the leader of the of the six sites, pointed out, she had some people who were scheduled for joint replacements, and after the trial they didn't need the joint replacements.

So we're all seeing health can be improved and cognition can be improved when you are doing the right things. And at the assisted living, this was just dietary change.

This wasn't even giving them hormones. Correct. So this was the yeah that's a great point. So this was just the basics. Now what happened. You can build on those.

And yes, some of them will absolutely be very good candidates for. And actually you know what? I have to go back and look. It's possible that one of them did get one or even maybe two.

I'll have to check with Wendy, who is the one who followed with them. But you're right, the vast majority of them did not get Bart. So this was doing what we call the basic seven diet exercise, sleep, stress, brain training, detox, and some targeted supplements.

In some cases, they did have some infections or some toxins. So they had those addressed as well and they responded beautifully. It's just fantastic because as I was telling you before we went live, I had this this dream of just going to all the assisted living and sprinkling hormones for everyone.

And I think, you know, I think the work you're doing, it's like they, you could put assisted living out of business, right? Like if people get this kind of treatment before they even go into assisted living, they won't have a need for assisted living because they'll have all their faculties with them.

And they could, you know, live independently. And, you know, I think that there will always be people who don't do that and they will need assisted living.

But this particular facility, by the way, has independent living, assisted living, memory care. And they're actually Dennis is now building an entirely new building that will be for cognitive support that will be using this approach.

So we're very excited to see that. So I don't think we'll ever put assisted living out of business. I think what we'll do is we'll change it to a happier place.

As you know, assisted living has been an area that's just about depression and sadness. I don't know if you saw recently there there was a new series that was called The Burrows that was about assisted living.

And, you know, the guy was just grumpy and saying, you know, it's interesting. They say, you know, we're going to have a new life here, he said. We just go to die.

Well, that, you know, that's needs to be changed. And what we saw with this cohort is that it can be changed. This is not pie in the sky. It's something that is already started.

And so if you can if you go to a place that has this approach, you really can have a much better situation.

Resources, Testing, and Closing Remarks

And by the way, in Marama, one of the people, one of these initial people who came through came in, had had some cognitive decline, went on the protocol, got better and left and said, okay, I don't need to be at this assisted living anymore.

So that's the future where it's a place where people can come and go, not just come and die. Yeah. It's amazing. Yeah, there's going to be on this word.

I'm interviewing Heather as well. Oh, great. Yeah, she's a dear friend and. Yeah. Amazing. Heather was amazing. I

love working with Heather and Rachel. They're fantastic.

Yeah. Well, this has just been. I'm like, you know, just so beneficial. Just the depth of your knowledge, the the hope you're giving from this assisted living story, the practicality of getting your labs tested and really knowing what's going on.

And, you know, just myth busting that Alzheimer's is a death sentence and that there's not underlying things that can be addressed is just such a gift to everyone listening to the world.

So any less things you want to share with the women listening? Yeah, it's a new era. Please don't wait. And one thing you can do, there's a free online cognitive assessment that everyone can do.

Go to my CQ test, CQ like Cognitive Quotient, my test free online cognitive assessment because as you know, this can sneak up on you. So yes, if we're all proactive, we can really dramatically reduce the global burden of dementia.

Beautiful. Oh, and where can the ladies watching? Where can they follow you and learn more about what you're up to? Yeah, lots of places. So I have four books out at the end of Alzheimer's.

The end of Alzheimer's program, the first Survivors of Alzheimer's. We have seven people who wrote their stories, amazing stories to read. And then the new one, the Ageless Brain, which is for all of us to say, okay, how do we make it so that we don't have cognitive decline as we age?

We want for everyone to have their brain span as long as their lifespan, of course. And then you can see on doctor Dale Bredesen on. So you can see that on Facebook, on X, on Instagram, all of those.

And then there's also work on, on YouTube. You can see as well from a number of the, the interviews, who just talked to Doctor Richard Horowitz a few days ago about his remarkable work with chronic Lyme and cognitive decline.

So lots of places that you can find the work awesome. Well, go follow him, everyone. Continue the learning. Go do the cognitive test. Do all the things this is, you know, one of the most important talks we've we've had on the summit about, you know, protecting and saving and healing your brain.

So thank you, Doctor Bressan, for being here. I'm super grateful. Thank you everyone for be here being here as well. And I love you all. And we will be back with another talk.

So stay tuned.