Introduction and Guest Background

Hello everyone. My name is Doctor Richard Horowitz and I am the co-host of the Doctors Talk Healing Lyme Summit 2.0. We're very happy to have you with us today.

And our guest today is doctor Heather Sanderson. And Heather, it's really it's a great pleasure to have you here today. She is the New York Times bestselling author of Reversing Alzheimer's The New York Toolkit to Improve Cognition and Protect Brain Health.

So, Heather, tell us a little bit about yourself and how you got into Alzheimer's and cognition and and why you're doing what you're doing. I had the privilege of training under doctor Dale Bredesen, your friend, my mentor. In 2017.

I had heard throughout my training that you couldn't do anything to help someone with Alzheimer's or dementia. And when I heard him speak at an I am a major mental health conference, he basically said that wasn't true, that there were patients that were improving.

And the way that he was doing it made conceptual sense to me. And so although I was very skeptical, I was like, I need a double click on this. So I went ahead and went to his training, and I realized part of why it made conceptual sense is because as a natural path, I had learned a lot of the different components that he was talking about in the training.

Things like balancing hormones, a through menopause detox, balancing nutrition, making sure that lifestyle factors like diet, exercise, sleep and stress management were dealt with, and then also looking for things like infections and even some of the infections that maybe weren't so popular to look for.

So I appreciated where he was coming from. And then I was trained by Doctor Bredesen, and I went back into my practice, and I was on the list of people who had been trained by him at that point.

Right. As his book, The End of Alzheimer's, was hitting the market. It was also a New York Times bestseller. There was a lot of momentum around that, and a lot of people looking for solutions outside of the diagnosed and audience that you often get in a in a neurology clinic, unfortunately.

And so I had patients showing up and it was my first patient, I mean, who I talk about in the book, who really opened my eyes to what was possible. I mean, it was just this dramatic case.

She came in with the Moca score of two. So that's a Montreal cognitive assessment, which is out of the 30 point scale. You might have also heard of the mental status exam or the slums test.

These are where to put cognition on a scale between 0 and 3030 is perfect. 26 and above is normal. And she had a two. She basically could answer questions sometimes with yes or no.

And this was obviously had fully affected her relationship with her husband. She was completely dependent on him and she of course couldn't work. It was a really awful situation for them.

But she had this huge, bright smile and you could see her soul sort of shining through this disease process. And I sent them home feeling kind of sad.

But I'd gone through, you know, went through the motions of doctor reticence approach. I got her, bioidentical hormone replacement. We directed her to a biological dentist who could get her amalgams out, help her with her gum disease, get all of her crowns replaced, but needed.

She needed a lot of dental help. They were living in a moldy bedroom, and so I advised them to move out of that. And what they did was they just sealed off the upstairs, and they moved into the living room downstairs, and they started ballroom dancing several times a week.

They got on a ketogenic diet. She started taking the supplements, and just six weeks later, her mocha had improved to a seven. Now, this was someone with severe dementia.

And I thought to myself, the first thing I thought when we saw that that Moca score improvement was that we had done it wrong. I was like, here I am, like a baby demented doctor.

Like going like, wait, did we do it wrong? I know this isn't supposed to be possible. And her husband had to be like, no, she's different. This is different.

And our lives are way better because of it. She wasn't going back to work. It wasn't a cure. She wasn't completely healed. But they're the difference in their experience.

Day to day had dramatically changed because she had improved and they had been willing to do the work. And when I saw what had happened for her that day, I couldn't help but think, what about everybody else?

What about these people who haven't gotten that far down the path? Could we be doing even more for them? Can we prevent people from going into memory care?

Could we prevent people from losing their jobs? Could we prevent people from going, like having to suffer through the long goodbye that is Alzheimer's?

And what I've seen over and over again in my clinical practice, my research at Miramar, the residential care facilities, is that, yes, we can we can prevent delay and often reverse the symptoms of Alzheimer's.

Right. So in this toolkit that you're talking about and, you know, Dale, I interviewed Dale before and we'll be talking. The thing that struck me with Dale is that we came to this from completely different sides, like I started I'm a board certified internist, so I didn't, you know, think I was doing Lyme when I came out.

It's just I went into the most limited Demick area of the U. S., which is why I ended up, you know, looking at it. But when I looked at Dale's model, I looked at mine.

It was like, hold on.

Brain Health Framework and Lyme Connections

We came to exactly the same conclusions, which is there are these infections, right? And there are these environmental toxins like mold and heavy metals that are affecting cognition.

And, the wrong type of bacteria in the gut. Right. And I don't know if that a species can be a problem or if it's a species. These people obviously not sleeping, they have insulin resistance, which was, you know, known factors.

But, you know, in my world, I looked at it when hold on. We're coming at it exactly the same way. I'm wondering, you know, whether Lyme may be playing a role in a lot of these patients, right, with cognition and dementia issues.

And we see the same thing. So in your world, when you're treating people, what are the biggest factors you're seeing that are making the biggest difference in getting their cognition back?

Yeah. So there's definitely a combination of factors. And most cases it's not one thing. And I the way that I systematically organize myself because this can sort of feel overwhelming.

And as you mentioned, you know, a lot of not a lot of people, but many people, I think, with their common sense hat

on have come to the same conclusion of you can have people who have the same diagnoses, who get there in different ways, there are different paths to the same issues.

And if you go through the conventional world, you get that diagnosis and then maybe you get a medication that's meant to treat the symptoms. But from our perspective, this functional medicine perspective, the goal is really to say, why did this happen?

What are the things that set you up for that? And this is common sense but somehow uncommon practice. So we think through the six components of brain health is how I organize myself.

And I actually put infections last because I think that the first five have a big impact on immune function. Now, in the case of Lyme, there's a caveat to that, because Lyme disease, as you well know, and I'm sure many of your listeners do Lyme in the Lyme co-infections actively suppress immune function.

And so now we have, you know, a much more complicated milieu of potential factors going on here. But I want to go through our six components of brain health.

We have toxicity. And these can be out of balance right. Too much, too little in the wrong place at the top, at the wrong time. These things can happen in different ways, but toxicity, nutrients, stressors, structural issues, then signaling issues and then infectious issues.

And Lyme is one of those ones that I look for in everyone. But when we have extra toxins in the in the system, when we have imbalance in nutrients and maybe even extra sugar or iron, then all of a sudden we're feeding infections or we're unable to deal with the infections because we're busy dealing and it's resource, it's expensive to deal with toxicity. And so we don't have the resource available to get up and over the infections.

So there's a big, there's a it's complex, but we can be systems about how we go through these things and they overlap. Right? They're intertwined. It's all part of a bigger conversation.

Got it. Now, you know, in the literature in the last couple of years and you know this with with infections, the herpes viruses have obviously come to the forefront in HSV one two, but also HSV seven eight.

Right. There's a whole series of herpes viruses, Epstein-Barr has been associated. There's lots of them now. And of course long Covid. Now they're talking about causing similar actually Alzheimer's right.

Type changes in the brain with it. When you're looking at these infections I of course I divide them up into bacterial Lyme and Bartonella for me are probably at the top of the list.

There may be some cases of mycoplasma and others viral infections. Of course, we talked about parasites like the BCA. I see it cause an issue in some patients and even fungal, whether it's Candida in the gut or muscle toxins getting in.

So do you divide it similarly, like when you're looking at these people and you're going through it. When we're looking at the different infections. Yes. Yes.

Yeah. Yeah. So I mean I'm not a line expert, but I sort of had to figure out how to treat it because I've seen so many people with mild illness. I, I also trained with Doctor Neil Nathan, who I'm sure you know.

Well, and so my practice for a long time was mold and dementia. About half and half. And so I look for Lyme in all of those patients because if somebody has Lyme present, we're not we're not going to get to the finish line.

They're not going to achieve optimal health unless we address that. And so I certainly have and I mean parasites I would add parasites to the you mentioned the bees. Yeah.

But even gut parasites, protozoa horizontal overgrowth in the, in the gut. We could argue that maybe some of that

is normal, flora, but I'm not so sure.

And so, yes, addressing those those microbes are is a big part of what we end up doing. And people have different levels of tolerance for the treatment.

I'm sure you've seen that along the way as well. Some people are very sensitive to treatments and people go through big time reactions. And so a lot of the pre-work is making sure there's enough nutrients and potentially getting out toxins.

Sometimes it's like a death stares. It's like toxins, infections, toxins, infections, toxins, infections. And we're kind of going back and forth trying to build up tolerance and resilience.

And also again, kind of, make those resources available. If we can reduce the toxic burden, then now we don't need as much methyl B12 to be getting the mercury out.

And we can use that methyl B12 to help with fighting the infection. Right. And that's an oversimplification, but I think it illustrates the point. Right.

You know, in the studies that I've been looking at for Lyme, we discovered in the last 8 or 9 years that Lyme is a biofilm, persistent infection. And I know I followed your work, you follow mine.

And, you know, the capstone therapy. I just published my ninth study in the last nine years, and it has great penetration into the brain. And interestingly enough, it it has effect on amyloid production.

So, you know, I'm looking now at doing a randomized placebo double blind study on, on Daptone. And when I looked up in the literature was interesting that every drug I was using for it, whether it was tetracyclines or rifampin, or hydroxychloroquine, they all had some effect either on amyloid precursor proteins or amyloid.

And I found it fascinating that all of these things were kind of overlapping. And of course, I wasn't looking to do that. But when I did a PubMed search, I was finding it.

Are there any specific treatments you found in your population for Lyme that you like? Because I'm using these. Persist your protocols. I'm finding them to be highly effective.

But of course there's many ways of of getting people better. Is there 1 or 2 treatments that you've tried that you like specifically? Yeah. You know, with vinyl in particular, I've seen that Garlic and Vigano have been really helpful and beneficial and well tolerated.

And so I do tend to reach for those very quickly. I'm also with, the gut parasites I alluded to. I'm pretty, liberal when it comes to getting people on anti-parasitic that doesn't, you know, if there's overseas travel, if there's pets in the home, if there's a if we are take issues and I'm pretty quick to jump on an anti-parasitic regimen.

And I love, you know, basic over-the-counter things that you can do even, with the diatomaceous earth is one. But I will go through a series of Alinea and build your side and primo mice and antidotes, all in albendazole, and usually end up back in Alinea and see what people respond to best because, and that's a very aggressive for someone who's older and potentially has dementia.

But we would try other things first. But I'm not afraid to go there. I'm not afraid to use kind of a sign, a new clean heart sort of protocol for anti-parasitic, because I see that be one of the more profoundly helpful things that I can do for a patient, and it often sets them up to then be able to do the antifungals and to to get sustained treatment with that, because that that fungal pieces seem to come back up again over and over again.

Some of them will be a have a tendency towards candida or towards toenail fungus or towards any, sinus fungal issues. And so really completing that process often will take getting on a ketogenic diet.

So getting the carbohydrates out and then sometimes doing the anti-parasitic beforehand helps them to respond better to those antimicrobial treatments later on.

So, of course you're naturopath doing it and using natural things just like Doctor Murray Hinchey, my co-host, uses. So, but you are finding, for example, when you're treating those parasites and getting rid of the Candida, not just the other infections, bacterial, and viral, you are finding, in fact, that it is making a difference in cognition.

Oh, yeah. So when we so we run sort of an array of, what I'm looking for, kind of like we look for toxic burden. I think of it as infectious burden. How fired up is the immune system?

How much burden is there generally. And if it's Lyme, it's sort of in a different category, because that can be, again, because it can be so immunosuppressive, because it can be so hard to treat.

I don't want to, you know, I don't want to overlook that. That's a really big one. So I'm often double clicking on doing more advanced workup. So I'll do some general screening.

And then I'm going to do a Gen X or T labs or some of the other testing. In fact a labs is one that I'll do as well. And, and then I look at in case files and that kind of thing more thoroughly if they're popping up on a, on a screening test as positive for Lyme or if there's a really extreme history.

Right. They know they've been there by ticks and they grew up on the East Coast or there's a you know, they have a positive that they've had in the past that maybe wasn't treated for as long as it should have been, then we're going to dig into that more deeply, but generally just kind of taking that step back.

When I see someone with a high infectious prison patient of Alex is one that we test for routinely. You mentioned the herpes viruses, but also perfusion valves, which can be found in the mouth, has a direct impact on cardiovascular risk and brain health risk because it's increasing the that inflammatory cascade that is going to make blood flow to the brain compromised.

And it's also going to create this inflammatory response responses. Defense response in the brain which can look like amyloid. Amyloid is anti-microbial.

So it's there to protect us. Amyloid doesn't pop up because it wants us to have Alzheimer's, right? It happens because the brain is trying to protect itself from an insult.

And those insults can be toxic. They can be infectious and stress, you know, stress also can be we can have too much of some of the good things of some of the good signals.

Right.

Infections, Toxins, and Amyloid Debate

Since we got onto the amyloid, can we bring up for a moment the retraction in the scientific literature of the amyloid hypothesis? Like, is this really amyloid at this point?

Because amyloid is early I know this is a big one. And the tau, right, is later on in the process. But from what I've read, it seems like many people have amyloid as they get older, but they don't necessarily have dementia.

Could you talk a little bit about this problem with the amyloid hypothesis, and even the mitochondrial hypothesis that's grown out of this of like these alternatives of why brain health is maybe, as you're saying, it's it's infections and toxins, but that amyloid is like a natural process that happens. Right? And it's happening to everyone.

It doesn't mean if you test positive in your blood for amyloid, you're definitely going to end up with Alzheimer's. Yeah. Absolutely not. So we know there's definitely a correlation between Alzheimer's and amyloid that there's no question there.

And in fact with amyloid in dementia. So dementia as the umbrella term Alzheimer's is a type of dementia. And it's characterized by these misfolded proteins, beta amyloid tau proteins and these tau tangles.

And so what's happening in the literature and in the research and sort of in the culture around Alzheimer's, for a long time, if you weren't studying amyloid, you weren't studying Alzheimer's.

Now, how did this happen? There were a series of events, starting with Allawi's Alzheimer and the first patient, a guest who was diagnosed in 1906, I think it was, or maybe it was 1916 and that there was somebody trying to sell a textbook and they put a single case study, not a case series, not three, not five, not a randomized control trial.

But they put a single case study into the textbook because they needed to update it. So this is a marketing ploy back in the early 1900s, not a scientific one.

And then later, as the National Institutes of Aging was formed, they needed funding. And if you talk to doctors who are in their 70s and 80s, then why do we call it Alzheimer's? Isn't it just senile dementia?

Like, wait, what's this whole thing with the Alzheimer's? Did we learn more? No, it was really to get funding. So when you say dementia, a lot of people say like, well, but if you say Alzheimer's, it puts the fear of God in us.

And there's a reason there was marketing that was done to make that happen so that there could be funding for the NIH. Now, the other thing that came out of that was this focus on the amyloid.

And but part of it is the incentives, right. Doctor Bateson is not going to get a patent on telling people to eat a ketogenic diet and sleep more and to take some supplements that you can't.

This is an unpaid interval process and protocol, but a pharmaceutical intervention, a single molecule intervention that can be patented. There's a return on investment.

So there's an incentive to put a lot of energy effort and dollars into making a single molecule intervention for this particular disease. And that's what we've done.

And we've doubled down on it over and over and over and over again. Now in 2011, there was a study that was done on people from babies to centenarians, and they found that less than 2% of people do not have amyloid.

There have also been studies on sleep deprivation. Just one night of sleep deprivation on someone in the 2030s 40s can lead to a buildup of amyloid in the brain.

We also see that there are centenarians who have tons of amyloid who don't have cognitive impairment. And we see people with lots of cognitive impairment who have been diagnosed with Alzheimer's, who don't have amyloid.

I think less of that will happen because we can detect tau in the in the blood. It's much easier to do a lot of this workup for a while. You can only really diagnose Alzheimer's after an autopsy.

And then there were there were very expensive tests in imaging that could be done. But more recently there are better diagnoses, better diagnostic tools that are available to the layperson through lab code.

And that makes it a little bit easier to understand exactly what's driving the process. At a at a neurophysiological level. But really, what's driving the project is what's above that.

What has turned that neurodegenerative process on is what we are really interested in. Right? So, you know, with what turns it on when we're looking at the biochemistry in the brain with it, and we see this with Lyme all the time, you get these micro glial cells that get activated.

Right. And we've been using things like low dose naltrexone, melatonin even even the absence seems to have an effect on it. And a lot of the pathways like Kirk time or reactions in Lyme patients is you turn on the switch NF kappa

B we use alpha lipoic acid NK glutathione.

We have to lower inflammation through the Nrf2 pathway with tumeric, broccoli seed extract, sulforaphane, resveratrol, green tea blocking in LRP three inflammasome.

So it appears that when I everything I've been doing for Lyme, it appears that when I look at the Alzheimer's research, it seems to apply in the same way.

Do you find that actually blocking microglial activation makes sense? Is there anyone looking at this at this point? Because we are definitely seeing in the Lyme population, it helps patients when we do this.

Yeah, absolutely. So there's micro microglial hypothesis kind of shifting from the amyloid hypothesis into what's getting turned on. And I think that I guess my sometimes I hear people say, well, inflammation is the cause of all disease.

And it still begs the question, what caused the inflammation? And so I don't want to get stuck on micro glial activation, because what caused the micro glial activation to start with.

But we really want to resolve the trigger or what pulls the trigger, I suppose, because people have different genetic predisposition. Right. So April, April, if you have one copy of for your you increase your risk of developing Alzheimer's throughout your life from, from 13% to 30%.

And if you have two copies, it goes up to well over 50%. And yet it and so you can have this sort of like it's early activation or accelerated activation if you have a genetic predisposition.

But what we want to do is just never activate, right. We want to try to prevent that. And now with Lyme, people can't help it. Right. With toxins sometimes we can't help it.

But the idea is to identify that activating factor that had that the thing at the top of the cascade so that we can intervene before we set off all this downstream inflammatory, activation.

Right. And in your world, and it sounds like from speaking to Dale and for you that the triggers are actually the same in our Lyme worlds and in the Alzheimer worlds with infections and toxins are kind of at the top of the list.

And I know again, they've talked about again what's going on, the microbiome of the gut. Marcel activation happens right. Also affects Alzheimer's sleep.

But my concern when you said about one day of sleep, you remember from med school and going through this, we had more than one day of lack of sleep. Along the way, I kind of wonder about all the docs with amyloid deposition after this point in time.

And then of course, vitamin mineral deficiencies. You know, we, we find people that are B12 deficient just on checking methyl melnick acid levels. Right.

Not on standard. So, you know, there are standard workups for this, but but I think we're saying the same things that yes, it's the triggers obviously we have to look at.

But you're finding even if they have that inflammatory response, the amyloid is being deposited, as long as you're getting to the underlying sources. Right.

And some of the downstream effects pots this autonomic mitochondrial dysfunction, hormone dysregulation, you are seeing that the brain health does get better in these patients.

And metabolic I would I metabolic that that nutrient imbalances include high sugar high blood sugar and high insulin. So yes we see that it's easiest of course I'm sure in your case as well.

But the earlier you know someone's been exposed to Lyme, the easier it is to treat it. The earlier we know that someone's brain is changing, the younger they are, the easier it is to see results.

However, many people wait until they're desperate or they, you know, this is kind of a new conversation. I feel really excited because there, you know, there are things in The Economist and Time magazine, and Sanjay Gupta is on CNN talking about the the last Alzheimer's patient.

And so we're starting to get into the mainstream. But this isn't in most people's vernacular. Most people have heard the same thing that I had, which was that there was nothing you could do for Alzheimer's and dementia.

And that is factually inaccurate at this point. There is a lot that you can do. And yes, the majority of time we are seeing patients improve even with the diagnosis. Well, I mean, I, I want to be careful with exactly how I say this because people with mild cognitive impairment that is very close.

It's not mild at all. Right? Is it's on the it's on the spectrum. Right. So Alzheimer's happens in essentially four phases. The first is where there are changes in the brain.

And we've kind of alluded to this right. There's microglial activation. We might be able to pick up. There's p tau that we might pick up. We might see less perfusion or changes in the structures of the brain.

And that we might pick up before someone has any symptom at all. And then there's that subjective cognitive impairment where someone starts to notice my brain isn't working the way it used to, but nobody else could tell. Right?

But I can't come up with names, or I would have remembered where I put that thing five years ago, ten years ago. And then the third phase is this mild cognitive impairment where people are losing their jobs.

They're not making it to appointments, they're misspeaking. They're repeating questions. And what we've seen consistently is when we engage people at that level.

And then Alzheimer's is that fourth stage, when we engage people in the mild cognitive impairment level from we we did a clinical trial in my office where we took people with Moca scores between 12 and 23.

So this is measurable cognitive impairment, and 74% of them were better in six months. Doctor Bredesen did a similar trial. It was published a year earlier.

Both were published in the Journal of Alzheimer's Disease. They took 25 participants through a nine month intervention. They had Moca score down in 19, so it was three months longer in terms of the intervention, and the Moca scores were not quite as low, but 84% of those participants improved.

And that's consistent with what we see. We do a longer intervention. If people are earlier on in the disease process, they get reversal the vast majority of the time.

Now, when someone like my patient, who I started this conversation with, who has a Moca of two, I don't have a huge ton of confidence. But then let me tell you, it's over and over again.

Testing and Staging Cognitive Decline

My patients have proven me wrong and shown me what's possible, that we've had people go from non-verbal to reading nametags and sharing their name when someone asked, appropriately responding that they're hot or cold or hungry and that that that although it's not a cure and it takes work that is meaningful improvement and reversal of the disease right now.

Now, in these four stages that you were describing. So if somebody wanted to check at this point where they were so they have to go for, you know, a Pet scan and expecting at this point, can they, can they just do an amyloid beta

or a phosphorylate tau 181 in the blood or, glial fiber?

Larry, acidic protein, I mean, these markers that are now in the blood, how do you how do you stratify, right. So people. With these markers, what. I would recommend is when knowing your equity status is it's really helpful because it lets us know where you are in terms of risk.

And I recommend actually doing the p tau 217 that seems to be the most trustworthy blood marker. And that is available through, through LabCorp. It's not covered by Medicare yet, but it is available.

It's a couple hundred dollars. And Peto 280. What? And and or 181. Excuse me. And the beta amyloid ratios, they tend to go up and down. And they're not independent or they're, they're dependent on things like getting Covid.

You will see that. They'll go up and down. There's also they need to be interpreted, with the context of weight loss, with many people getting onto a Bredesen type protocol, get on a ketogenic diet, a mildly ketogenic diet, and avoid processed foods, and that will cause weight loss, which can interfere with those results.

So you want to make sure that if you're asking your doctor for those types of tests, that you definitely put it in the context of the clinical presentation, and you're talking to somebody who really knows how to interpret them, I have had I think the reason you hear me hesitating is because I have a colleague who came to me and he been diagnosed with Alzheimer's, and he's still working, I mean, diagnosed with Alzheimer's, like the fourth stage.

And he be told, put your affairs in order. It's all downhill from here. Based on one of those markers that basically goes up and down if you get a cold.

So totally inappropriate diagnosis. And I wouldn't want anyone going out and asking for those tests, getting them. And then feeling the fear and the anxiety that they have Alzheimer's, I think when you put them all together and you put them in in the perspective of like, okay, what's my genetic risk?

It's probably more likely that this is elevated if I'm able for positive because my body's going to go in that direction more easily, where are based symptoms and if they are positive, you use them as a sense for a sense of empowerment.

Okay, I'm going to learn everything I can to optimize my cognitive function, to minimize my risk. And really take them with a grain of salt in terms of any diagnosis.

Right. Okay. So question about that. You would shared with me earlier, but you developed a mantra connection, overcorrection. You want to talk to people a little bit about this.

What does this mean exactly. And I think that this comes up, you know, I'm sure even in the line space healing requires that we get into rest, digest and heal state that we are we activate that parasympathetic nervous system.

And many times when we feel sick or when our mind, we feel like our mind isn't on our team anymore, we feel like we're losing ourselves. As you're caring for someone, whether they have Lyme or Alzheimer's, it's a very it can be a huge burden.

And we want to make sure that we still are amplifying the joy and the connection in life and that that if you know, what is life about, if not that, I have the privilege of speaking to many people who are older, of course, in their last phase of life.

And I ask them routinely, what brings you joy? What what are you most proud of in your life? What are your happiest memories? And I tell you, it's not the work they did.

It's not the money they saved. It's not the house they built. It is the people. It is the connections that they made with the people they loved. And if we can amplify the connection, then we can get into that rest.

I just inhale so we can get better outcomes and we can just live a better life. We can be a little happier. And what we see over and over, at least in the dementia space, is that there's this attachment to getting that right.

And it's not so much about correcting someone if they say the wrong city or the wrong date, or they ask a question again, but really going to where they are meeting them, where they're at, and I'm sure in the land space, this is this comes up as well.

It's like acknowledging that someone is sick, that they didn't choose this, that this is a disease process. And if we can show up for them in a loving and connected way, we're going to get better outcomes and we're going to have a better time doing it.

You know? Absolutely. I speak to people all the time about it. And you're right about, the connection. I mean, there's actually been, you know, this has been quite a few studies actually, on loneliness.

Right? And depression and it's association with Alzheimer's that you need to have connections in life. And it's funny you bring up about finding joy because and as a health care provider, I mean, some of my greatest joy is when really sick people get better.

But I'm also at a stage in my life at this point. I like teaching. I mean, I love doing what you and I are doing right now. It's fun right? Talking with other health care providers and learning and doing.

It's a lot of fun. I'm actually thinking of starting medical stand up comedy as I'm now, now going forward, because I'm about to do a randomized trial on DAP showing and I'm, you know, I'm writing new books and it's like, where's the joy?

And fortunately, I have this wife who is like the most fun loving, you know, person and loving warm you could ever meet. So I really lucked out. And not everybody has that ability. But you're right.

I try and do that with patients in the office. And one of the things I tell them when they first come in, because you've got to give people hope and you know, this, this is like really essential and you're giving people hope.

You're basically saying even today it doesn't even matter whether you've had the diagnosis or not. There's a lot of things you can do in your toolbox, right, that can help reverse this and make you better.

I ask people like with their goal, like when you get better, what are you going to do with your life? And it's like, when I get better, it's like, what do you mean?

It's like when you get it's like that starts to put that seed inside. And it's true. I mean, once they get over the line and we get them through the part and we've treated the parasites and we pulled out the mold and we've gotten them to sleep, we've got them off sugar and their insulin resistance is better.

And, you know, gotten their Mike all of those things that's in your toolbox that we do the same things for Lyme. They are definitely better. There's not even a doubt.

So it's it's actually wonderful to hear you say that because you're right. I mean, the connection is really important. And finding joy and meaning in life because it's it's not just about like what you've accomplished.

Right? Right, right. You know, I don't know if you have a moment for that because I want to ask you. So I've been using I know that you use a lot of doctor and I think it's scared me.

Do you mind if I ask you a couple of questions? No, no, of. Course your audience probably has these questions too. But as a I've been a little afraid of daptone you.

I learned from you ten years ago about it, and there's a lot of blood markers, and I think especially my cognitively decline patients, I'm worried they're going to skip a test or we're going to mess something up with the dosing.

And Daptone feels a little scary to me. So I tend for Borrelia. I tend to use crypto lepers, Japanese knotweed, a whole laundry list of herbs. But I'm I'm worried I'm not getting up over the hump and we're not fully clearing it.

It certainly takes a long time. I have patients who have, you know, it's been 2 or 3 years. We've been using oregano and garlic for their Bartonella, and we see it improve but not fully resolved.

Same thing with the line with the with the Borrelia. And then for the Beasley I I'll use ivermectin to to quit often to, to finish when I don't know what they're using.

Exactly. I don't even know how to spell a lot of these. Just to quit in a toga cone is the new treatment. Yeah. And so I feel a little bit nervous as well there that especially older patients with kidney and liver issues.

I start to worry that I'm not getting them enough benefit for the potential risk. So let me I can I can answer that question simply. So, everyone who uses DAPs on myself included, by the way, when we first start is concerned about the drug because the drug has four side effects, which I call do no harm.

HS Horkheimer reactions. You get a lot of inflammatory cytokines and chemokine release is anemia. It's a folic acid induced anemia. Are is rashes if you're really sulfur sensitive, you could get a rash.

Fortunately, most of the people who are even allergic to bactrim, sulfur methoxy, it's all trimethoprim. They do fine, but we'll give them an h1, h2 blocker just in case.

And the last is meth hemoglobin Mia from oxidative stress. Now, because I've been working on these home protocols for the last, you know, ten years plus, and I've done this in over a thousand people published on about 400 people.

What we find with it is that all the side effects are completely reversible. So what I say to people is, if you had lung cancer, I because it's a tough regimen.

Don't get me wrong, it's a tough regimen. I compare it to cancer chemotherapy. I say to them, listen, you've got fatigue, bad cognitive issues with memory concentration, migratory joint pain, tingling, numbness, burning, neuropathy, chest pain, palpitations.

You can't fall asleep. You keep you have all the classic signs of Lyme. I'm going to give you a treatment that initially is going to make you worse, but usually early on in the treatment there's a sweet spot.

Usually it's around between 25 and 30 7.5mg of that zone. With a little minnow, people will say, oh my God, the light comes on. I haven't felt this good in years because I'm not pissing off the bugs enough to cause great hoaxes, but I'm lowering down inflammation.

And Daptone is an anti-inflammatory agent. One of the articles that was done on DAP some years ago that really piqued me with Alzheimer's was done by doctor Lee in Korea, where he had a, a double blind randomized trial in over 8000 people on DAP stone for, I think, close to 15 years.

And it prevented Alzheimer's exacerbation. The reason I have now gone to DAP zone is my, like, number one treatment, and I don't leave people anything long term.

Is that in the last 8 to 10 years, we discovered that Lyme and Bartonella are biofilm persistent bacteria.

Connection, Hope, and Caregiver Support

The problem with this is, is if you don't use persistent drugs, rifampin, DAP zone presents my methylene blue with a for persistent drugs. I can't get rid of this thing completely from the body.

Now it's it would be a big statement for me to say I'm curing people with chronic Lyme. Although the study out of

Tufts University by Monika Ember showed rifampin and DAP shown in the mouse model did cure Lyme.

What we are seeing with the nine week Depsang protocol, which is double dose taps on 100 and twice a day. The second month is that when people are done, first of all, the reason you don't have to be scared is the numbers come back to normal all the time.

There's never been one person where the anemia did not come back. You'll get a macro psychosis with the size of the cell stays high for a while, but the numbers always come back.

If the liver functions bump, you could get your bears. It'll get worse. You might get a, you know, a bilirubin of two or even three. They get a little yellow. It goes back to normal when they're done.

If they get liver function abnormalities, it goes back to normal when they're done. The anemia I'm using over 200mg. Well, 200 of Luca Vaughan and 120mg of L methyl folate.

So there aren't over 300mg of folic acid. To stop the DAP stone induced anemia. They will drop around four grams of hemoglobin. So I don't like women to be below, you know, 12.

It's kind of tough to get through this protocol. But if you're a woman with a 13.5 or 14 hemoglobin, you'll go around to around ten and then it goes back to 14 two months later.

As long as you stay on B12, iron and folic acid and the hemoglobin is now controllable because the higher dose methylene blue were using, which, you know, in the Alzheimer's space.

What I've been impressed with is it looks like it's also helping with tau proteins. And it's about a control regeneration. It's an interesting drug. But we're finding that it's keeping down the hemoglobin levels.

So we're getting on the average, maybe five 6% of hemoglobin. You might feel short of breath, you might be a little anxious. Blue hands, blue lips. Buddy, it's not dangerous.

It's dangerous from if hemoglobin is like, you know, 50, 60%, it's never ever happened. So I compare it to cancer chemotherapy. I say to someone, look, if you had lung cancer and I was going to give you a regimen, you would end up actually with, you know, chemotherapy, brain fog afterwards and you end up probably with neuropathy run from your sis platinum.

And you'd have long term side effects. But if you were lucky, you'd be alive and you'd be in remission. Well, in Lyme case for daptone, there are no long term side effects.

And because we're using over 500 billion twice a day of the probiotics for the gut, we never see cases of C diff. They're on very low carb diets. If I think they've got a Candida overgrowth at the end, I give them some fluconazole and clear it.

My wife, who is now six years in remission, she was sick for 25 years. She's six years in remission without one symptom. At this point, she's still got a little patch disorder nightmare she needs to work on.

But the point being, you can't get rid of these infections unless you're using pulsed. And I want to make sure people understand this pulse persistent drug regimen.

So what do we do now? We do nine weeks of dapt. Soon we wait two months, and then we do two weeks of antibiotics with only six days of dapt zone. And that's primarily when part is present.

If it's just Lyme, a nine week protocol will oftentimes they will go into full remission, except when they have more toxins. The mold toxins looks like Lyme.

It interferes with the success. And now we're finding long haulers to be a problem where we're checking radiance

diagnostics with the 14 cytokine panel and finding that these people that meet the long hauler criteria, we're now trying from Bruce Paterson's protocol with Miraval, Rock and Pravastatin to see if we help them.

Now, I've not yet seen miracles, but it does appear if I can get their Epstein-Barr reactivation and the HV six under control and get the viruses, they will get better. But, but to answer your question, I only would give to a patient what I myself would do or give to my beloved wife.

If I had chronic Lyme, it would be the first thing. Honestly, I would put myself on. But you've got to be positive, right? You don't want to be negative with this.

There are certain things you need to put in place. But when I tell people when you're getting used to daps on is to get your foot in the water, just start with low dose.

I have a guy who came to me, by the way, several years ago saying he had Alzheimer's. He saw a neurologist in Long Island and I said, go get a Western blot.

It lit up CDC positive he didn't want to do the whole protocol. He's in his mid to late 70s. I only put him on 25 of DAP zone with 15 of elemental folate, with 50mg of minocycline.

He comes back a month later and says, my cognition is completely fine. And by the way, he stayed on this protocol for the last four years. I just leave him on 50 of minnow and 25 adapt zone.

And the guy is a composer. He's a musician. To get used to that zone, the way you have to do this is start people in 25 and 50, watch the counts. Stop it. Let the counts come back.

Then go to 75. But if you've got a guy with like a 1516 hemoglobin who says, I have cognitive impairment, mild cognitive or worse. You can close your eyes like a dartboard and do the full DAP zone protocol with a guy with a 16 hemoglobin.

Not even have to look at the labs. Honestly, I'm telling the truth just because they'll even if he drops 4 or 5g of hemoglobin, he'll be back to 16 two months later.

The entire protocol is published in microorganisms 2023. And I told Dale, at some point, you know, we should, you and I and Dale and all of us, we should be coordinating because at some point we should be doing a randomized trial because Lyme is localizing with amyloid plaques in the brain in these Alzheimer's patients.

Right. Judith McCloskey has done a lot of work. And my question is, God, how many people actually with Alzheimer's or dementia, really? In fact, have what we're talking about today?

Lyme bard parasites, microbiome too much insulin resistance. I think it's it's what I call em SIDs. And whether it's Lyme SIDs or non line mem, it's like you can have Bartonella causing cognitive dysfunction without having Lyme.

We're finding Bartonella 90% plus of our patients at this point. And are you seeing Bartonella and Berbizier together. Pretty much always. Always. Yeah.

Almost in every patient we see at this point. And if it's not there and I test a few months later after we started treatment, the other one pops up. I it's what I've gone.

The three B's are showing up really at the easier bar to show. I mean, you don't want to make it like it's everybody, but honestly it is turning out to be most of these chronically ill people.

So if you get rid of your email. Yeah. Yeah. No. So listen to hear you. You and I can do this easily if you have a couple of patients with reasonable hemoglobin is in good shape.

And I've done this, by the way. Still in 7075 year old people, you can still get them through it. But the beauty is, is

that they don't have to stay in anything long term.

These are short term protocols. I don't have to worry about antibiotic resistance. I'm using multiple drugs. But the real moment is these are biofilm persistent bacteria.

And the only way I know of, by the way to get rid of them is biofilm persistence protocols. But for people who are afraid of DAPs on one thing, I train them in you can do the same protocol without DAP zone because rifampin, Cipro, max and methylene blue hits by persistence.

You just need six days of it. I have to use the higher source of methylene blue. We definitely. You and I should be coordinating on some of this. And then again, next year's conference, we could, you know, be speaking.

Up this way. Yeah, I know I'll have stories to share. So the mayor of Eric and the Statens, I have been using the Patterson approach and what I've seen with, with long haul Covid patients.

And maybe you've seen the same is that there's always something else going on.

Lyme Treatment Protocols and Closing Remarks

There's toxins, there's blind, there's something else that makes people have that. It just like Covid was such a great illustrator of how some people had no symptoms to even test positive, and then other people die.

But there's other things are going on. The co-morbidities became a household term. Everybody knew what that meant after Covid, because it made such a big difference in how we respond.

And I kind of wonder if Lyme is a similar thing. We respond to Lyme in a in a more debilitating way if we have other things going on, if the mercury is high, if the more toxins are high, if these other pieces are there.

And I saw that over and over again with long Covid patients, for sure. The Maritimes, like I have seen, be very, very beneficial for my Maxwell patients that people tend to tolerate it.

As you can get it, it's it's not always easily accessible in the pharmacies, but if you can get it, I've seen it lower inflammation significantly. Now I only use it if people have elevated rents.

So I don't know. I feel like Doctor Pattison tends to use it more liberally, but I tend to use it with some pro resolve in mediators. And we see dramatic reductions in the inflammatory markers and in symptoms as well, particularly in sensitivities like MRSA.

So for what it's worth, that has been my experience. Not everybody, but many. I've only used it in about 8 or 10 people. I need a larger, you know, group to really test it, but it hasn't been the miracle I was hoping for yet.

But I've been doing the six week, not the 12 week protocol of Miraval Rock Pravastatin for long Covid. It's a using a six week or using the longer 12 week protocol.

And usually is 12 weeks. And I don't always do the setting. Okay. Yeah, I'll have to. I'll have to try them and say so we're we're starting to get we're I mean, we could be doing this for hours.

You can have it in for days like. Let me just give you 1 or 2 questions. So we will wrap up on this. The goal of Marama and how does it connect to the book?

Right to You, a New York Times bestselling book, and some of the challenges people face trying to incorporate these things into their lives. What would you say to these people?

Yeah. So, Marama, actually, everything that I've done is essentially been because patients have asked so after so I Darlene and started seeing more and more dementia patients in my office, I had a reputation for sort of being the

go to person in San Diego for, for helping families like this.

And I had people asking, where do I send my loved one? I love the idea of what Doctor Reticence talked about. I read his books, but I got a full time job and kids to raise and a husband to keep.

I cannot drop my wife and do this for my dad. Where can I send him? And there wasn't a place that was providing this immersive experience and Doctor Brunson's work.

And so I was like, okay, how hard can it be? So we created Marama. Well, then once we had Marama, we opened the doors in March of 2020 right before the world shut down with Covid.

And so that was a wild ride. But a lot of what we heard from people was, I don't I don't feel comfortable moving my parent across the country to San Diego, especially with Covid.

How do I do this from home? And so that was why I created this 11 module coaching program that was hopefully making the protocol as accessible as possible from the comfort of your own home.

How do I do this? Boots on the ground for a caregiver or for someone with early cognitive impairment? How do I do what you're doing at Miramar, but do it here so I can stay with my loved ones.

I can stay involved in my church and around all of the people I know and love in a familiar environment. And so that's where the coaching program came out of.

And then we basically took the coaching program and put it into the book, because nobody wants to go to memory care, nobody wants to go to a facility.

As we age. We don't like dream. You know, we dream of retirement and it looks like our feet up on the beach, reading a book, having a cocktail. Right, not going to some program away from your friends and family.

And I so my goal with the book is to keep people from ever needing something like Marama to keep people home, to make Doctor Bryson's work as doable and effective as possible.

And so that's really where all of these things have come from, patients asking, how do I get more support with this? Or how do we do this in this context or with these constraints?

And it's most affordable that way to. Write and to make it easier for the caregivers, because of course, it's a really, really difficult challenge for caregivers with people with dementia.

What are you finding is the most important thing? It's the same thing with Lyme, by the way. The people are very ill. The caregivers have what what are the tricks that you found over time that brings fun and joy and support?

How do you do it for these people? Thank you. I mean, just asking that question like, where do you get joy? What are you going to do when you get better with your life?

Where is the purpose and the meaning and the joy? Because that's what life is about. And then to get started. So I love having just that perspective and that mindset shift of like, what am I looking forward to?

And we see there's Becca Levy's work. I'm breaking the H code. It's all about how that mindset shift really changes outcomes as we age of people who have a positive outlook on aging live seven and a half years longer.

They also can negate their ApoE risk when they have a positive outlook on aging. So that makes a big difference, a measurable difference. The other thing that we recommend people do is choose one place to start, and I direct people in two directions.

One which is we've already talked about a few things. We've mentioned metabolism, ketogenic diet, having fun,

sleep, treating, sleep apnea. There are some easy things that you can do that are affordable, that are quick, they're easy.

Even just reducing your carbohydrates or getting started with exercise. Something simple that maybe you're already starting to do. We talked about social isolation very briefly, but if you're going to church on Sunday, but you could add a couple of Bible studies on Tuesdays and Thursdays and be more socially integrated into your community.

And that's a simple, easy thing to do because maybe your neighbor goes anyways and she could give you a ride. Do that simple quick thing and get the dopamine hit of success.

And then the other place to start is you've listened, and you're going to be listening to this whole amazing sound that the Doctor Horowitz is putting together.

What is the big thing? Oftentimes, there's a really big thing that we know we need to change. We've been sedentary for a long time, or we've been eating a diet we know doesn't serve us, or we haven't prioritized getting out of that way to stressful job.

There's something big that needs to shift, and I would invite you to take this B day. Zero regarding that. By the way, I found that years ago when I was starting to write my first book, I wasn't okay. There.

I, I wasn't exercising regularly, I was off and now it's like it's 20 minutes of exercise every day. It's on my treadmill at 12%. It's, keep those carbs low because otherwise I'm hypoglycemic and I get candida.

It's like, I've seen this myself. Like, I have to live this right, or I just don't feel well. Thank you. Yeah, I had the same experience going through my book lunch.

I stopped exercising, it was hard on my sleep. It was hard on my mental and emotional space. It made everything more stressful. It's hard on my daughter and taking responsibility for her own health.

Taking the steps. Investing in your health, I think, is the number one next step. Thank you. Heather. This this was great. So for everybody listening, you've been listening to doctor Heather Sanderson.

She's a New York Times bestselling author of Reversing Alzheimer's The New Tool Kit to Improve Cognition and Protect Brain Health. Heather, what a what a pleasure connecting today.

I have a feeling you and I are going to be connecting, in the future a lot more often. And and we should be doing some studies together. I'm happy to be sharing with you the DAP. So.

And holding your hand doing these protocols. I have a consultation model that I'm, I'm starting very shortly. So if you need some help here because I do think that between Dales work and your work and my work, there's a lot of overlaps here with the cognitive dysfunction.

We're all finding the same things or impacting health. And it does it gives hope to people. But you're right. They got to figure out on day one where they're going to start.

But the good news is there is hope. And people do get better. Absolutely. Doctor Horvitz, it's been such a privilege to be here with you and so much fun, just so enjoyable to learn from you and have these conversations.

Thank you so much for having me. And it's my pleasure. Thank you very for listening. This is Doctor Richard Horowitz. I'm co-host for the Doctors Talk Healing Line Disease 2.0 summit.

We hope to see you again soon.