Introduction and guest welcome

That is when I understood that the current understanding of progressive secondary progressive M. S is incomplete. And who knew how much recovery might be possible?

Four months later, we do the same thing. This time it's an 18.5 mile bike ride. Part of the courage ride. And once again, everybody's crying. My kids are crying.

Jack is crying. I'm crying as I cross that finish line. And this fundamentally changes how I think about disease and health. It changes the way I practice medicine.

This is doctor talks. Welcome to this episode of the Environmental Toxicants, Autoimmunity and Chronic Diseases Summit. Where are your hosts? I'm Doctor Wendy Trubow, MD, MBA, IFC, and this is my co-host, Doctor Edward Levitan, MD.

I have MCP and AB, IOM. I got it, baby. Our guest today is someone who I've been a huge fan of for a long number of years. So it's one of those doTERRA, right?

Okay, I'll speak for you too. Like one of those fangirl moments where I go, this is an awesome guest and I like all of our guests, but really, I've been a tremendous fan for years, so I'm just beyond honored that Terry Wahls, MD, has come on our summit to talk about ways to prevent chronic diseases and autoimmunity.

So reverse them and reverse. I'm absolutely. So, Doctor Wahls, would you mind introducing yourself to the to the team you're listening. So I'm an internal medicine doc, a professor of medicine here at the University of Iowa.

I have a secondary appointment to a Department of neurology because I have my own personal, remarkable healing journey recovering from profound disability due to secondary progressive M. S.

where I could not even sit up to where. And now I'm now jogging two miles at a crack. And as a result of that, I wrote a case report, a case series. Then my chief of medicine said, let's do some proof of concept clinical trials.

We did a safety and feasibility study and with others with progressive us that was successful. Then we've done a number of other slowly larger and larger trials.

Terry Wahls' recovery story

And, we're now on our eighth clinical trial. We are changing the world. It's lots of fun and I can't wait to tell you more about that. You know, I've always loved the intersection of driven, wicked smart and purpose living a life of purpose and contribution.

So I'm so psyched to dive in. I think most appropriate place to start is if you don't mind sharing. I mean, my story. Yeah, your story, because it's pretty profound.

So, for the listeners who who aren't aware of this, but I'll tell it in real time as it happened. So in, 2000, I'm diagnosed. Well, in 2000, I developed weakness of my left leg.

I see a neurologist who says, Terry, this could be bad or really, really bad. And I know really, really bad could be really, really, really bad. And I think about the 20 years of worsening trigeminal neuralgia.

These are the electrical pains that, come across my face, and I don't want to be disabled. So actually, I'm praying for a fatal diagnosis, because I don't want to disabling one.

Three weeks later, I hear multiple sclerosis. I do some research. I find the best Ms. center in the country. I go see them, see their best person, take the newest drugs.

Three years later, I hear tilt, recline, wheelchair. I get my wheelchair. My face pains are relentlessly worse. My ten year old daughter hugs me as tears stream down my face.

But you know, I am a physician. And night after night I go to PubMed and I start reading the basic science. I develop theories, I begin experiments for myself.

I decide mitochondria are the drivers of disability, and I create a supplement type pill that I take that does slow my decline, and I'm very, very grateful.

But I am still declining. By 2007, I cannot sit up. Let me repeat, I cannot sit up. I have a zero gravity chair that lets me recline with my knees higher than my nose.

I have one at work, one at home. My chief of staff tells me he's reassign me to the, Brain Ranger clinic come January. He describes the job. It's clearly something I cannot do physically.

Yeah. I'm, quite distressed. The following week, I discover a study. I'm assigned to review a study that uses electrical stimulation of muscle, in people with traumatic, spinal cord injury.

I read it, I think. Well, that's really interesting. I, do some, searches. I read the 212 abstracts. I convinced my physical therapist to let me have a test session.

Hurts like hell, But when it's done, I feel great. He lets me add that to my physical therapy. And then I discover the Institute for Functional Medicine.

They have a course on nerve protection. I take that I have a longer list of supplements. And then I had this really big moment that I actually quite embarrassed.

It took me this long to have this moment. I'd already been following the paleo diet, for five years after having been a vegetarian for 20 years. And finally I was like, what if I redesigned my paleo diet based on the supplements I was taking from my review of the science from Functional Medicine?

And that's several more months of investigations of that were that that stuff is in the food supply. And I start that new way of eating. And then January comes and I go off to the track Ranger clinic.

And, you know, the first two weeks I'm just watching my partner. So I should be able to do that. The third week, I start seeing patients. At the end of the first day, I'm like, well, I could do that at the end of the week.

I realize this wasn't too bad. And then at the end of the month, I realize my fatigue is less, my energy is better, and I think I, I can sit up again and I sit.

I sit at the table with my family to have supper in my in a regular chair. We have a ten year old. Deal that that's a pretty big deal. And at the end of February I have a letter to mail.

I met the in my office. I decide to try with my walking sticks, walking down the hall, the mail five letter and people are like, oh my god, that was your walking.

And then I began walking around the hospital and then around the block and then in on my Mother's Day. As a matter of fact, I tell my family I want to try riding my bike.

We have an emergency family meeting because my kids don't want me to ride my bike. I made so much progress. They don't want me to fall and lose ground.

Jackie, my wife says to my big 16 year old six foot five brother, you know son, like you're going to jog alongside on the left, said he was 13. You jog alongside in the right shuffle and I push off.

The bike wobbles, but I catch my balance and I bike around the block. My big six year old boys, he's crying. My daughter's crying. Jag is crying. I'm crying and I still cry.

Talk to you about that. But. But because that is when I understood that the could understanding of progressive, secondary, progressive, that mess is incomplete.

And who knew how much recovery might be possible? Four months later we do the same thing. This time it's an 18.5 mile bike ride, part of the Courage ride.

And once again, everybody's crying. My kids are crying. Jack is crying. I'm crying as I cross that finish line. And this fundamentally changes how I think about disease and health.

It changes the way I practice medicine and it changes ultimately, the focus of the clinical research that I do. And of course, I can't tell that story without crying, you know?

And part of the reason it's so emotional is that when you have a progressive, neurologic disorder, part of the the coping strategy that most people go through is that you let go the future.

You just take each day as it unfolds. You know, things are going to get worse over time. You take incredibly toxic drugs to try and slow down that decline.

And so I was remarkably better. But I had let go the future. It wasn't until I got on my bike that I was like, well, my future is pretty good. We just don't know how good it's going to be.

But my future is good again. Did you create a new future from that point? Yes, a new absolutely. Because then it's like all who knows how much, how much better I might get, how close to normal health and vitality.

How close could I, could I get? And that radically changed the kinds of interactions that I was having with my patients in my traumatic brain. Your clinic, which, of course.

Now, when do I see that? As God was whispering in Doctor Cody's ear when he said, Send Doctor Wahls to the traumatic brain? Really? Because that clinic, those folks, they didn't have a future there was like, we don't have a treatment for you guys.

All we've got for you is, well, we'll give you psych drugs to keep you from becoming raging, violent individuals so you can hopefully keep your family in your job and you'll recover.

Maybe some function, but we don't know how much. Yeah. One thing that you're pointing out that for me is just striking is I think in this day and age, we really think we're living in the golden age of medicine, or a lot of us physicians think that.

And I think we've lost our wonder and our inquisitiveness. And there's so much more out there. Most of the time it's Pooh poohed by the majority of physicians out there.

And it's just, yeah, just the what's available and what nature can heal. What your own body can heal is. It's just remarkable to see Doctor Hadiya, who teaches with me in the, bioenergetics course, has a really wonderful, point of view, when he's dealing with people with severe mental health issues that in, physics, you know, really basic science that, is it 90% of the matter is dark matter that we fundamentally do not understand at all.

And that dark matter governs the reality of the universe, which means dark matter must also cover up in the reality of biologic matter as well.

Diet changes and symptom improvement

And it says to his people with severe mental health illness, there is immense amount of stuff that we do not know that the ability for the mind to heal and repair itself.

There's far more about that that we do not know than we know. Yeah. So everybody needs to have hope, in real life. So that's part of my mission, is to remind people that there's a lot we don't know in functional medicine, ancestral medicine, conventional medicine.

And so my focus is teaching people how to create more health, more resilience, using the kinds of things that we know. And of course, there's more to learn.

And I let my partners in the conventional world here at the university and elsewhere, they both treat disease. That's fine. I'm not about treating disease.

I'm about creating health. And I have a variety of tools that I work with my patients to help them create health. And then it's a side effect. I have to monitor the use of drugs that my conventional colleagues are using so that people aren't overmedicated.

Those are your those are actually your confounding factors in your study. Now, instead of the primary agent you're evaluating is what did they do to study?

So in every study, what I've had to do know we have data safety monitoring boards, in the big side effect that every time is unintended weight loss and people are overweight or obese.

And so I'm always filling out the safety reports. How many people are losing weight, how rapid the weight loss is and the more overweight you are, the more rapid the weight loss is.

And so far no one has become underweight. You know, people lose weight rapidly, very rapidly initially. Then it slows down and they get back to the weight they were at in their early 20s.

And that's where they that's where they live, because now they're at the appropriate weight for them. The body wants to be in balance. The body wants to be in balance.

And if we focus on health and what what do we know? Of course we don't know everything, but we do know some things about what can improve health and vitality.

Those are the things that went in my own healing journey when I was like, okay, that's what I'm going to be focusing on. That's when the magic began. I think it's really critical to just highlight, you know, you walked by us at a conference in Boston.

Yeah, it took me a moment because one of the last times I saw you was about a year prior to that, and you weren't moving as fast, and this time you went strolling behind us, lugging your bag.

And I said to Ed that that's Terry Wells, because it was such a huge transformation in just that period of time you have had and I've seen you when you were using a cane to walk.

Yeah. You know. Yeah. And now you were pulling a bag at a rapid clip. Well, yeah. After smoking, not well. Now you're speaking, but after a long plane ride with a star stops, right?

Yeah. So. So the transformation is marked and it continues to improve. Yeah. It's been a very big year because, you know, I was jogging for a while about six years ago.

But that's starting to be more trouble. Back pain now to deal with that. So that's when I was, back with the cane for a bit, intense rehab, you know, once again, intense rehab, a tense exercise, back pain got resolved.

And I'm back to, you know, walking briskly and now jogging. And I'm just so excited that I slowly mind you. But jogging two miles. 2.3 miles. That was the longest, I've gone.

And it's gives me just immense joy. I used to run marathons, ski marathons, but, you know, long distances. Well, and that kind of athletic activity gives you gave me immense joy as a young, young person and gives me immense joy now.

Yeah. And I want to pause again one more time. Because if if for our audience members, if you just pause and think about this, is the person that. Was in the wheelchair, could not move on for years, for years, for years.

How you were wheelchair bound for four years, four years. And I was so weak I could not sit up in a regular chair if I sat in a regular desk chair like I am now, or you are for more than ten minutes.

I was so exhausted to lay flat for the rest of day and could not work. I could not go to a movie. I could not go to a restaurant. If we drove to my family, to Jackie's parents for Christmas.

We had a man that in the front seat, I would recline all the way back that strapped me in with, elastic straps. And that's how I made the trip. When you decided to change your.

The way you eat, what it sounds. What I got from this was that you were essentially trying to get from your food what you were taking in pill form, and see if that made a difference.

How did people react to you and what were the things that you added and or subtracted? So I'm going to go through the sequence. I had been a low fat vegetarian, so this would look like a tremendously healthy, heart friendly, diet.

And I've been doing that since American. So my very, very healthy diet, can we drill into that because like vegetarian is, you know, was it like so red or so it was, legumes.

And, a lot of rice, a lot of vegetables, whole wheat bread. Okay. I did have some eggs, in. So that would look a lot like a mediterranean diet, which, a lot of people would say really, really healthy.

Now, we also now know that gluten. I have severe reaction, to gluten that'll turn on my trigeminal neuralgia incapacitated by pain within 6 to 24 hours.

If I have even the tiniest amount of gluten or dairy. Next time you're in Boston, you should come to us because our house, because it's there's like, no trace for the last 20, ten years, 15 years.

We got guy diagnosed right after our second daughter was born. So you can track it to her age. She's 16 right now. Oh, you sure about that? Yeah. Yeah, yeah. Okay. So. So, yes.

I would love to come to your house and, try your food. That would be safe. That would. That would be marvelous. So, now, in retrospect, that was part of the problem.

Now, however, I went on my neurologist recommendation in 2002. I gave up being a vegetarian and went back to eating meat. My parents, who were farmers, they unfortunately had both died and wed become a vegetarian.

As a teenager. They said, Terry, you're going to wreck your health. You need meat. And so I was like, okay. So I became a vegetarian. No. No gluten, no grain, no gluten.

I was still having, dairy, and cheese. I was still having eggs. In was that part of the problem? I had my supplements, targeting mitochondria a that I started in 2004, and I gradually added more and more.

And I took my no protection course, added more. I did a food sensitivity test, which and then I also took out dairy entirely. So I would take out legumes, dairy, nightshades and but I'm still eating eggs.

And I did a food sensitivity test that summers when I took out, added Eastham. I'm still having my trigeminal neuralgia, although it's less then I get that I like.

Okay, I should redesigned my paleo diet because I thought the science made sense and who knows how long it takes for my brain to repair itself even when I get rid of, the bad stuff, I'm eating the right stuff.

And then at the beginning of November, I'm like, you know, I got to figure out where this is in the food supply, because then I probably get other things that are along for the ride with these nutrients.

And that's why I have a long list of foodstuffs that I should have. And this is November of what year? 2007. So I'm getting this list organized. December 27th.

I start, and so it's wild fish. It is more, garlic, more onions, more mushrooms, and incredibly, lots more greens. I mean, incredibly, a lot more greens.

Did you, did you eat it raw? Did you steam it like it would continue? I'd say, about half of what's cooked, in half of it is raw. Now, I'm starting this in December.

So there's, it's mostly cooked because, you know, I'm starting in December. Were you able to feed yourself when you started this? Yeah. Correct. Correct.

So you were able to I don't you know, I'm still working although I'm beginning to have brain fog. So, you know, John, John was probably right to assign me to the traumatic brain clinic for a job that he knew I couldn't do. So.

So then I would have to face time to apply for medical retirement. That was probably kind of the command center. Like, you can't do this. You're having brain fog.

Yeah. So, I mean, I don't criticize him, for that. I think he was making me a reasonable decision. So let's go back to the vegetables. Can you quantify that?

I know right now you've quantified it to nine cups a day. Yeah, that's probably that top 15. So were you eating all day? I mean, this is just a really large amount of bulk.

It's a huge amount of stuff. And so at that time I would have so we would have a big meal at supper. I would take the leftovers of that meal for breakfast and lunch.

So I would have a big smoothie in the morning and whatever the protein was, I would continue to take more of that smoothie for lunch and more of that protein, in a thermos.

And the smoothie was blended vegetables so that you got it in a way that was a little was easier, easier to eat. And keep in mind, if you are measuring 15 cups and cooking it, that's only down to about eight cups.

So you're talking 15 cups cooked or equal, blah blah blah. Right? Okay. Can I ask like a personal question? Sure. Okay. I'm a gynecologist. All I love to talk about is gut function and sex.

This isn't about sex. It's about your gut. So did you poop? It was easy. Well, yeah, I have to, but I don't recall people with a neurological issue. Whether it is neuro immune, like a mouse for neurodegenerative, like Parkinson's, constipation becomes a big issue.

In constipation often precedes the neurologic diagnosis. So I had to. I had developed constipation. Yes. And did that become less of an issue with this new way of eating? Yes.

I don't recall any, bloating issues or or abdominal pain or discomfort that way. I certainly recall that, I needed to take less stuff to manage my balls, because usually I was taking stuff to manage my balls and was always a question of take enough to poop, but not so much to have incontinence or diarrhea.

I mean, and sister and, you know, that was sort of had been, something I was balancing basically since probably diagnosis. I think it would be a good idea to just take a little detour into the importance of pooping, because if you're not pooping regularly, fully, generously, you're not getting rid of your toxins.

So it's just sitting and building up in you, and then you start to recycle the toxins and hormones into your body as it sits in your gut. So that's my plug for pooping every day.

Yeah. And let me put in my plug for rocks, logs, snake putting in tea for research. We like to do the Bristol poop chart. Yeah. 1 to 7. Yeah. Great research tool.

Patients don't know what that means, but they do understand. Are you poop pooping rocks? Are you poop on logs so dry and hard to get out? Or logs that are easy to manage, or snakes that are easy to manage, pudding or tea and is the poop getting in your pants.

So everybody understands that question. And it really comes down to I want them to poop comfortably, easily inhabit, not get in their pants. And if it's an easily passed log, that's okay.

It's an easily controlled snake. That's ideal. But if you have M. S. or Parkinson's, or if you have Ms., fecal incontinence becomes an issue. It's for many of those folks, they're going to prefer a tendency towards constipation as opposed towards the snakes.

Even though snakes are ideal, those snakes have a tendency to get into your pants. And that's a problem I remember vividly. So our youngest came to work with me for about six months after she was born, and I just had this flexible role at the time.

And one day I said to Ed, who's I think everyone knows by now we're married.

Clinical response and early controversy

So I said, I'm sort of guessing that, yeah, we're married. So I was like, honey, can you make my shake for me? I don't have time. I'm rushing to get us out to the office.

So he makes me shake. I'm not watching. I drink my shake and I proceed to have diarrhea the entire day. The whole day I was like, what's going on here?

And the reason it sticks out in my mind so much because I had a baby strapped to me. And do you know how hard it is to go to the bathroom with a six month old in the carrier on you?

You know, like you can't even bend over because she's there, so and you can't see what you're doing because she's there. So I to him. How much mag did you put in my shake?

Do you remember this? I don't remember how much I really did, like, you know, half a quarter of a teaspoon. And he's like, I did four. I was like, oh, no wonder I've been in the bathroom all day with the six month old.

And then and then I was nursing her, so she got it to that was fun. That was very memorable. So like, a good fight for, like, managing. I'm glad I gave you a memorable moment.

You gave me a shareable moment. We talked. You know, and people, learned through stories. We we learned through stories. And that's how we can categorize, knowledge.

So people will remember that magnesium has a variety of effects. Yes. Man, we love mag bag is good. So you start this new eating plan in December, December 27th, and then 2038.

Precise December 20th 6 in 2007. And you're starting the brain injury clinic a couple of weeks later in January. And how do people react when they see you consuming these and and how many people went crazy when you started

to improve and crazy in a good way, like, oh my God, we're so many, what do you do?

So it's wild. So they're necessarily watching me because I'm in my office having my smoothie and my lunch. But what? They see us, you know, I'm walking for the first time.

That's really quite remarkable. And, now I'm walking without my walking sticks. That's really quite remarkable. And then my, you, my patients are getting remarkably improved.

You can see who I saw the traumatic brain injury clinic and they're they're hearing about that and the primary care clinic. You know, people are impressed.

My residents are impressed cause I'm teaching all this biochemistry. They think I'm talking about the latest, newest drug. And what I'm talking about is broccoli and curcumin meditation.

And there's sort of a that I go staff, meet the veteran, and I get the veteran fired up for eating vegetables. And so now the results are a great sort of fired up for wanting me.

They can't wait for me to meet cantankerous Jane or John, because they want to see how I can convince them to radically change their diet in a five minute conversation.

So how do you do that? Well, what happens? What? I'm personal residences. You tell a story and you tell your own story about the health transformation, and then you have a metaphor that matches that person's point of view.

So I had farming metaphors, I had mechanic metaphors, I had factory metaphors. So I needed to know their occupation. Then I'd have a story, of transformation.

And, you know, they understand that you can't put sugar in an engine and expect it to run. Well, I'm like, okay, you got to provide yourself the proper fuel.

Yeah. And it doesn't take long. If you're speaking from your own personal experience. And so I was remarkably successful in the Braintree clinic in primary care and not everyone, but getting 50% of your patients to radically change their diet and experience, health, is astounding and sustain it.

Right. Is there some sort of time that they it's not like you do this for three weeks and then you're good. You do this for three weeks and then you do it for three weeks more.

And then you do like you keep. Well, what I would invite them to do is you pick a time to start in. The first thing you want to do is add in the stuff that's good for it.

And then we can talk about what you want to, remove that is harmful to. So the first thing is to ramp up the vegetables. And we have, a big block. And I say, okay, the goal is nine cups and they're like, okay, is that per month or week?

And they don't know that that's per day. Like, oh my God, doc, you got to be kidding. You live in the Midwest, right? I mean, this this conversation is not a normal, normal conversation from the things that people who live in the Midwest have told me about the food and the relationship.

People. Right. It was a very different, conversation. But I would also make the observation that, okay, you've been doing what you've been doing for years and you're getting worse.

How about you give this a try for two weeks, and let's just pick the two weeks that you want to give it a try and see what happens. We emphasize you add food first, get the good stuff in, and when you're ready, then you start working on taking the bad stuff out.

I warn people that, sugar is addicting. Gluten is addicting. Jerry's addicting. And so if we're going to go down that

route you want won't get it out of, site.

So you don't have to be watching this tempting food all the time, because if you watch it, it will find its way into your mouth. So you got to get it out of a line of sight.

It's hand mouth disease that is true. I don't sit on my first floor after dinner. After dinner, I leave the first floor where our kitchen is, and I'm either in the basement, in my sauna, or I'm upstairs.

I try not to stop in the kitchen because otherwise I develop hand mouth disease. Yeah that's right, if it's in your line of sight. Yep. Usually to see you is to want.

You totally know the whole thing. That's really interesting. Wendy, the idea is that. So I'm having this remarkable clinical success. You know, patients are.

We're reversing diabetes. We're reversing our, anxieties improving. Depression's improving. People are losing weight without being hungry. They were too thin, though, right? Be careful. We were so thin.

And. Roz. Rheumatoid arthritis. Yeah. Oh, yeah. Thank you. In the trek, brain injury. You know, folks with severe light sensitivity, that's less of a problem.

Severe headaches. That is less of a problem. People were still employed. That was a big deal. The Trek Braintree clinic that got you got to hang on to your job there were still living with the same, you know, romantic partner.

That was a big deal because, you know, all the rage and anger people were losing jobs and, romantic relationships. So clinically, people are like, wow, you know, so I'm having this great success and I have started doing some talks in the community.

At the local churches, temples, synagogues, mosques about my healing journey and the Miss Chapter society chapter one, be just speakers. Oh, yeah. Sure, sure.

So then I get interviewed by the clinical advisory Committee. For whom? For, the mass society. Because they they want to understand my message, so want me to tell my story, and then I'll encourage people to work with their medical team to implement the parts.

Would that make sense to them? How'd that go over? Well, they they were like horrified. Said, well, how would you feel if a neurologist came to tell you what to do for rheumatoid arthritis?

And I said, well, if you are convincing them to eat more vegetables, I would say, Hallelujah. And they said no, that they my message was way too dangerous.

That's funny. Yeah. I said, well, and so I was banned as a speaker. They told me that they were going to ban me as well. You need to do what you think is morally correct.

I'm going to do what I think is morally correct. I was in a wheelchair for four years. And I think people should get to hear my story and have hope and then work with their personal physician to see if they want to implement eating more vegetables, learning how to meditate and asking for a physical therapy referral.

And so over the next several years, I would speak to a wide variety of organizations, and I would progressively get interviewed by people who would have these amazingly hostile interviews and they would always know that was going to be a hostile interview, that would you would be very upset, but it had a dangerous message.

They would tell me that I, I was faking being disabled for four years. They would ask intrusive questions about my personal life, a very intrusive. They were horrified.

I was depraved, and depraved. Being a lesbian would somehow be the reason I went on this very depraved

mission of being in a wheelchair so I could pretend to have them, then have this wildly dangerous message to people with M. S.

that they should stop drugs and start doing what I did. I was on some pretty wild, awful interviews, but I always I, you know, kept my calm, say, well, I think people should get to hear my story and decide if they want to eat vegetables and if they want to learn to meditate, and if they would like to ask for a physical therapy referral.

I think that's an okay message. And they can learn that I am doing clinical research, and they'll all publish whatever I find in peer reviewed journals.

And if you think that's a dangerous message that you don't want people to hear, you can do what you want. And I will do what I think is morally correct.

Did you tell them that the earth was round? That would have been I never, I never I never got interviewed by the flat earthers. So I mean, that was a dangerous message originally when he said the earth was round, people were like, you're getting burned at the stake.

You know you're done. And what I tell my, my followers is that this is what happens to everyone who has a new idea, is that you are condemned for a dangerous message.

And every scientist who has a new way of approaching a disease state, you do your first experiments. You cannot get published because is such a radically new idea.

So from our very first study, we finished it and and I was just going to say in 2012, their first set of data in 2001, back up there was because you said you published on yourself, right?

We published an article. So we did a case study on myself, but then we did a case series and it took a while to get it written up and then trying to get it published, that that took a while, of course.

So, about a year to get a written up, another year to find a journal to get it, accepted. And then we had a case series where a similar sort of process a year to get it written up, another year to get that, a home for that.

And we had, that same time we'd finished our, the first ten people that had done the first ten with secondary progressive Ms.. That had used my protocol.

And they had really great results. So now we have to try and find a journal to get it in. In. That takes us about a year and a half. And that comes out in, 2014.

We had presented it, you had a conference in 2011. It presented, those findings in 2011. We presented them again in 2012. We, we had been presenting every year at the university what we were doing.

We had these amazing videos of the gate changes that people had, that were achieving. So we, we publish in a very, very, very low impact journal. But we got published and we paid the extra money so it could be, open access.

And we get into the, the next journal slightly higher. And we have several more papers that come out from that study. And then we have the study that was funded by the National M. A.

society, really much, much larger study. And that is now published in the multiple sclerosis journal, Experimental Translational Clinical Msj ITC. That's a pretty high impact drill in the Ms.

world. And then and I'm so excited about this. We have a paper that my postdoc, so he's a geeky student that we've had now for three years. And analyzed the dietary intervention studies that have happened that have been controlled since 2000, 14 and that is when we first started getting, published data.

And it's analyzed all of those, in that analysis, it's going to come out in neurology. So that is one of the highest

impact journals. So it's immensely, immensely gratifying that our work is being quoted by other scientists.

I've gone from being, dangerous to being considered the grandmother, who found the way of doing dietary intervention studies in the setting of Ms..

Research, publications, and MRI findings

And, you know, the concept that what we talk about the paleo diet, the Mediterranean diet, the low fat diet, the fasting strategies, the huge egg diet, they're no longer being called dangerous.

They're being called like there's promising research to support their use to improve fatigue and quality of life, and that someone needs to do a long study that includes MRI, which we are doing.

That was actually my next question, because one of the times I heard you speak a million years ago when you were still using a cane, you talked about that the you still had the lesions in your brain.

What has there been change in that? I still have the lesions in. You know, when I walked into my neurologist office in 2008, you know, that was oh, this was probably a mischievous streak.

I called my vegetable eater, by the way. Yes. So I called my, neurology office, and I said, you know, there's been a change. I think it should be seen. We'll see you today.

I said, well, Friday is more convenient. So I convinced them that it was. I was fine to wait till Friday, so I, I'm in the waiting room Sunday, standing there looking around and realize, oh, she doesn't recognize me because I'm not in my wheelchair.

So I stand up and I go, hey, send it over here, doctor Wahls and I, and I get up and I walk over. No, no cane, nothing. And so I see my, doc doctor she before he's so thrilled.

He's can't wait to get the MRI. And, we go get the MRI. We go down to look at it together goes, everything's still there. You know, of course they're there.

You've had these lesions. They haven't really changed in seven years. Of course they're going to be still there. But clearly you have rewired around them.

And so I told that to my patient that clinical function always trumps what you see in the MRI. Now neuroplasticity is like just pretty amazing that. Yeah. So if you have recent lesions you can probably turn those off.

If you have new enhancing lesions you can turn those off. I've not had enhancing lesions for burr for since 2000 and three, actually 2002 I've not had any enhancing lesions.

And now, interestingly enough, my, most recent MRI, my neurologist, I just said. You know, you're healing the lesions in your spinal cord, and those are the hardest place to heal because they're deep and yours are really, really old.

So I just think that's interesting that that that is beginning to occur as well. So what do like you said, you went to the best Ms. centers in the world or in the US?

Yeah, yeah, in the world. What do they say? Like, well, when I got into the into my tour, clean wheelchair traveling in the air was so difficult I quit going to them.

So I just I just stayed here and I, and my neurologist said, what you're doing is amazing. He was part of my, research team in my first, four clinical trials.

Then he retired. So now we have, other neurologists that are part of our research team write grants with the

neurologists at the University of Iowa. And we proudly present to their neuro immune group, my my colleagues here at the university.

In, 2000, 11 1213, are still pretty controversial. There were people who thought, what I was doing should be shut down, that I shouldn't be doing that research.

Fortunately, the chair, of medicine, Paul Rothman would watch me become disabled, get out of the wheelchair. I had become the dean of the College of Medicine.

He said, no, no, I like what you're doing, and I want you to do this research. So I didn't get shut down. And then we started getting our research published.

And then I started going around to various departments lecturing and including these these amazing videos that we have before and after we're people. I mean, the just remarkable improvement in clinical function.

So I've gone from eccentric oddity, maybe a little dangerous, certainly very eccentric to brilliant visionary that now the Department of Medicine is incredibly proud of.

And now the Department of Neurology is incredibly proud of my work. And the university thinks, you know, I'm one of their shining stars for how they get money.

Because the research I do so for the NIH. So it's like they want to do a single molecular pathway research study. And you learn a lot of physiology that way.

You don't create health, but you learn a lot of physiology. And the university continues to be amazed. Like the people who have funded my work for these last 15 years have been private individuals who whose lives we have transformed, who, who then say, you know, I like what you're doing.

I'd like to help fund the next study. And so we've been getting progressively, larger gifts and they've had no one else. I think that's probably still true.

They have never had, the university get a cold call from someone who wants to make a six figure gift, to support, a research project. Usually that is, it's a conversation that evolves over many months to many years.

Man. The size of the gift. No. Can I can we pivot a little bit because it's. I think that you have, you know, you're very methodical. So is there a way that you could talk about it's not only food or what kind of evaluation are you doing for people?

Well, this is sort of radical. Well, the the vegetable eating is radical. So at the VA, I mean, the Granger Clinic, I get zero labs, but I get 20 minutes every six months with people.

So those people got no evaluation and only had 20 minutes to chat with them. Do they already have a diagnosis? Well they're there. How have you got into the Granger Clinic?

Was you had a blast exposure sometime either in the military or after being in the military, and you have current neurologic or psychiatric symptoms that got you into the system.

And I come in and I'm like, okay, so let me talk the talk with me about your environmental exposures and your eating and your exercise. And we're going to do that in a five minute conversation.

And then they sort of reflect back like, okay, so if you want to be doing things that are under your control, we can either work on diet, we can work on stress management, or we can work on exercise.

And if you're really energetic, we can do all three at once. But given your story, I think most likely you've got it all. And most often it was toxin exposures due to, burn pits for the people I was seeing.

So. Okay, so you probably have a large burden of toxins that we should deal with, and you may have unrecognized gluten and dairy sensitivity. So if you're open to it, let's do a paleo diet.

If you're not open to that, we could talk about more vegetables or a gluten free, more vegetables that, you can see if you'll do that for a couple weeks and see what happens.

And because you've been suffering for a long time, are you are you ready to do a two week experiment? And, you know, I was pretty good. I got half half of these ladies and gentlemen, to do a two week experiment.

At the end of two weeks, it's like, okay, go back to what you're eating, and if you feel worse, then go back to the experimental diet. Yeah. And that would be the 20 minute conversation I'd have, for them then in primary care.

The residents would do whatever they were doing for their primary care visit. And I have now a five minute conversation, so I don't get 20 minutes. Now I have only five minutes.

And now I'm going to try and convince them to eat more vegetables and clean up their diet. And, again, I still about 50% of those vets, I could get to do that.

And I wasn't ordered any new labs than what they were already. After several years of that. Now I was probably about three then. Maybe it was two years.

The chief of medicine called me into his office at the VA, told me he was pulling me out of primary care. And what do you want me to do was to start my own clinic.

And we and I said, well, we have to get the chief nurse, the chief of the, staff. So the chief of the, of the physicians and the chief of the hospital to agree to this new chronic.

And I want to know that to have a dietitian that could work with me, I could design the clinic to make clear, I could not order any fancy labs. I could just order whatever was available to primary care.

And I could only order basic supplements that was available. So a b-complex A called the oil vitamin D to 2000 multivitamin and that. So that was it. But I could have more time so I could structure my, my clinic, around having more time.

And I went to primary care. I went especially medicine. I went to paint clinic. I said, give me your most difficult people who have fatigue and pain that you aren't helping.

They need to know they're just getting diet and lifestyle. And if you vitamins for me and that's it. But I predict that I'll have a huge impact on their, quality of life.

So we got a handful of folks and we turned them around, and then suddenly I got a lot more. When was this? And then a whole lot more. So 2013, and kept having to reimagine my clinic as group visits, larger group visits, and then finally classes because we want to let people out.

Right. And I had, invited the staff, nursing staff and the, medical staff to come observe what we doing so they'd feel comfortable sending people to us.

Then the next day at all. So this is probably 2000 and, 16 VA central office calls up and says we're going to come see, was this clinic. And I think, oh, boy, am I going to be in this.

Am I going to be in trouble now? And what what happened then? They were very impressed with our success.

VA clinic approach and detox discussion

What we were doing. They incorporated a lot of the concepts we were using in the whole health clinic, and that's

been expanded to, across much, many more of the VA, clinics across the nation.

It's amazing. So the testing that I do vitamin D, B, folate, homocysteine, lipids, insulin, CBC is to you. No a1 c a once a year and that's it. Yeah. There's no, toxin testing.

Everyone's toxic. You went through the VA, you live in Iowa. You're live in rural Iowa. You're probably toxic. That's what I actually want to ask is, is there any specific protocols to use for toxicity, or is it just vegetables and just, so if you if you read that book, The Wahls Protocol, this is really a great detox protocol.

I assume that toxins were a big part of my journey. And, you know, I talk about this in my book. So I'm two years into my recovery. I've been walking, biking.

I feel great, I'm two years into my recovery. And I think, you know, I wonder how toxic I am so or how toxic I was. So I do a doctor's data, challenge, urine test, 24 hour urine collection.

And I'm very toxic as I am. If you say toxic across everything. Everything. I think there's only one thing that I was not, wildly toxic in that I can't remember what that was.

And I had, like, 100 times the upper limit for gadolinium. Of course, that's not surprising. All of those MRI scans. Yeah, you're not a have what kind of gal. But.

Right. Like you're going to I'm pretty intense. So, you know, continued my detox, process. And keep in mind, I designed the last protocol as a detox process.

I continue that. And so two years later, I'm now four years into my recovery, and I repeat a challenge test using doctors data. And I'm completely clear.

And there is no evaluation. I still use the targeted supplements that I, talked about. It's probably the same similar protocol that you guys use. And I think we can presume are patients, consuming conventional food, living, rural Iowa or or anywhere America.

Living on the urban America, living on the earth. Let's start there. If you're alive, you're human, you live on the Earth, you've got toxins. You have a considerable toxic load.

You have to really work at avoidance, and you can work at detox. I don't think, people need to, like, should I think you should is indicated for acute toxic exposure.

It may be beneficial for chronic exposure, but it's, a high risk proposition because you could inadvertently shift those toxins from your fat to your brain if it's not done.

Quickly. So my advice to my patients is take your time. Do it orally. In use, use the protocols, that we described. You have you have a new study, right?

We only have a few minutes left, but I. Oh, yeah, we wanted to. Maybe if you could give us a minute or two. Because I tell you, recruiting patients for your next study, we are still recruiting.

Will be recruiting for, another 18 months. It's the efficacy of diet and quality of life. It is two years. And we want people with relapsing remitting Ms..

You'll have to come to Iowa for month zero months, three months, 24. We'll get MRI without gadolinium at baseline and at month 24 we'll have walking hand function, working memory, vision function test.

We'll have quality of life test. We'll save some saliva and some blood for future analysis. We have three arms a ketogenic arm, a pillar lytic arm, and a usual diet arm.

The usual diet arm will get monthly tips from us on things they can do to eat more vegetables and reduce the sugar and processed, added foods. If the people in the usual that are actually follow the suggestions we give them, they'll do probably just as well as my two intervention arms.

It is critical that you have a control arm for all randomized controlled trials if we're going to change the standard of care, but we must have a control arm.

The control arm is vital, and we're giving them the tools to do just as well. So we don't want people to feel disappointed, like, oh my gosh, I didn't get the intervention arm.

That's going to be a failure, I won't improve. I think, in fact, all three arms will improve because most people who are in dietary intervention studies really want to improve their diet.

So in fact, I'm predicting that even the control arm will improve their diet. And we have some, dietary measures to know, do people improve their diet and what kind of diet all three arms are following.

We will be measuring brain volume, and one of the hypotheses I have is that the diet will let people because when you have Ms., the brain volume loss is three times as fast as a healthy aging.

And one of the things that I'm hoping we can show is the intervention arms will get people back to the rate of brain volume loss that matches healthy aging, and I'm hopeful that my control arm will also improve their diet, following the tips that we're going to give them, and so that they, too, can get back to healthy aging.

And though our primary outcome is about quality of life that secondary measures related to brain volume are, in the end I think will be incredibly important and exciting as well.

I think it'll be amazing. So I want to really acknowledge you, first of all, because this is like I want to acknowledge you for your generosity of spirit, that you had a transformation on your for yourself is amazing.

It's a miracle.

Current trial and closing reflections

Miracle like unheard of. And what you've done with that is just, it's out of this world process and really want to truly acknowledge you for. Giving back to the world.

So thank you. Like truly from bottom from my heart I like it. It's profound what you've done and what you're doing and what you continue to do and what your story gives to the world.

Such you know, in 2007, I was coming to terms with I was going to be bedridden, probably demented. That's probably going to have my trigeminal neuralgia turn on so that, breeze, light sound talking, swallowing would trigger this horrific electro face pain.

And I had changed my, durable power of attorney, my medical power of attorney in my living. Well, such that if I stopped swallowing and stopped speaking, there would be no IV fluids and no tube food.

And I figured that I would die. Secondary to intractable pain. And as you know, unfortunately, that is not what happened. But I need to have everyone else understand that that gave up hope that they, too, could recover.

Okay, I think that's what we all need. Honestly. Unfortunately, I think it's that time. It is so Ed said it better than I could. So I won't repeat myself except to say to you, doctor Wahls, thanks for coming on this episode of the Environmental Toxicants, Autoimmunity and Chronic Diseases Summit, because I think we share all share the goal that we not only prevent, but reverse existing disease so that people can live long, live well, be vital, vibrant, healthy, able to be an interested in intimacy till at least 100 or more, depending on how we do with that.

And so really thanks for joining us for this episode. And I'm assuming if people have listened this long, it's because it made a profound difference, you know, especially how hard it quick things move.

This has been over an hour and it's been riveting for us. So thank you. Thank you. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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