Introduction and guest background

Hi everyone. This is Doctor Joseph Anton and welcome to a new episode of the Fasting and Longevity Summit. Today I have a very special guest and different guest, Doctor Ken Charman, who's the expert?

The national expert in not just neurology, but neurodegenerative diseases. And then started in that field that went into functional integrative medicine, which is really it's a rare combination of most doctors coming into functional medicine.

They come from the geology or obstetric or internal medicine. This is the first time I personally encounter a physician coming from the RG, because neurology today is is the is that discipline that does not have solutions to most conditions.

So for doctors can turn them into the root cause of what gets us into neurodegenerative disease I think is something super needed, especially when pharma failed in that field to bring true innovation and change the course of Alzheimer's, of ALS, of, Parkinson's.

We don't have solutions in most cases for them. So this is where functional and dual medicine is probably needed the most to try to prevent them or slow down a little bit.

The progression of these health conditions. Doctor Sheldon, thank you very much for being with us today. Thank you. I'd love for you to tell us your story coming from, you know, being a top neurologist and venturing into the field of, functional medicine as well.

Well, thank you, I sure will. Yeah, I, I finished my neurology training and, 1998 at Vanderbilt University and all the way through from medical school at Emory, and Vanderbilt University of Virginia, where else has spent time very, very esteemed, very traditional institutions.

And that's what I learned is how to be a very traditional neurologist and, and with, with a good, you know, skill set of taking in a, you know, an a history and performing a physical examination, determining where in the nervous system the problem comes from, which we call localization, and then ultimately deciding what I need to do to arrive at a diagnosis.

And to your point, historically, neurologists have had a reputation that was referred to as diagnose and address because we could make the diagnosis. We had some pretty good tools in the toolbox, or even better now with precision medicine.

But we have few things to really treat our patients beyond symptoms. Things actually have changed.

Limits of conventional neurology treatments

I must say, particularly doctor in intern in the area of multiple sclerosis where there are over that 2526 different disease modifying therapies, some very high efficacy.

But it's disappointing even there is, that these drugs ultimately really do little to address. Why did we get here? How did we get to the point, that tipping point where the person has developed M. S.?

As you probably know, there are a couple of treatments that have been approved for Alzheimer's disease, but they haven't for some very severe limitations.

Some, some risks. They really may be possibly beneficial. For the most mildly affected, individuals and arguably

their pharmacological target, the amyloid beta protein, may even be the wrong target to treat the disease.

Yeah. And then in, in, Parkinson's, we really are still in and leave a dopa daze. And that's gold standard. There's some evidence that, treatment with leave a dopa may help to, mitigate a quote unquote toxic protein associated with that disease called alpha synuclein, but it's still considered that's theoretical, and it's still considered really symptomatic management.

And finally, ALS. Well, we have had a few treatments out there, actually for several years going back to really useful, these treatments have a very, very modest impact on ALS.

And most recently, we actually had a drug that was, approved through the FDA through a special track of accelerated approval, because their phase two trial had been so promising and there was such a huge need for this terrible disease.

But when they completed their phase three trial, unlike the phase two trial, the drug failed to show that it was effective and it was actually pulled from the market.

So, you know, a real step back for for those suffering from males, we definitely need those tools, you know, and, so I practiced a number of years, seeing patients doing my thing and then realizing that they were just getting sicker and sicker and sicker, and I needed more tools in my toolbox.

And ultimately, that I stumbled upon functional medicine, but it was out of a, an interest that I had developed in endurance sports because I was out there doing long distance triathlons and marathons and hundred plus mile bike rides.

And I was keenly aware that in order to succeed in that sort of arena, I had to be focusing on more than just my workouts. I needed proper diet, sleep, stress, resilience, things like that, and make a big difference.

And if I could pay attention to those and sort of up my game, say, as a triathlete, why couldn't I bring those concepts of nutrition and movement and mind body work and sleep optimization into the clinic and help my patients with these diseases?

This that's the core of this summit, and that's the core of the angle of this episode. How can we, within that desperation that we have when when it's too late, as we say, within the within the neurodegenerative disease, how can we intervene to the nutrition, to the lifestyle, to maybe delay the onset or give a honeymoon period when somebody starts developing the symptoms, understanding the root cause that a lot of it has related with aging is related with the wrong lifestyle.

So how can you implement or what are the what are the tools in your toolbox as a as a functional medicine doc that you do there to support those patients.

So well, it can take that, step at a time and just interrupt me and have a conversation. But we I developed something called a five pillar framework where it's very nicely for what I now, I love functional medicine, but I prefer to call what I do integrative because I really do believe that sometimes the drugs are very, very helpful in my world of treating Parkinson's.

And I'm quite aware that, you know, fasting, mimicking diet is not a treatment for Parkinson's, per se. But, you know, if you want to eat, you have to be able to move.

Functional medicine and the five-pillar framework

Right? And I always tell people who are suffering from Parkinson's that if you're not only a dope, it's kind of like having a beautiful, expensive car parked in your garage, and you show it to your buddy and, let's go for a ride.

That's the most beautiful Porsche I've ever seen. You're like, can't do it because I don't have a gas in the tank

right? We have to be able to move and people need to exogenous take and leave a dope.

In order to move their body, they convert that to dopamine in their brain, and there's no other way to do that. So that being said, we have to go back to the basics.

And people do come to me sometimes not knowing what is happening to them, not having an answer for their spectrum of symptoms. And we call this first pillar, then identify to correctly identify the problem.

What so many neurologists are not doing in their clinics today is they are not utilizing the tools of precision medicine that begins with, you know, an accurate diagnosis.

And we do. We do. So we were one of the early adopters of the skin punched biopsy for alpha synuclein. Now there's a seed assay, but it requires a lumbar puncture.

So I still, for now, prefer the the skin punch biopsy. We I for years would stick a needle in someone's back, to measure levels of amyloid protein and tau protein in their spinal fluid.

Now, I can do it with a blood test. You know, so things change. But even, all the time I was doing the lumbar punctures. There was an article, a doctor intern that came out in the Journal of the American Medical Association, a few years back, looking at the accuracy of the clinical diagnosis of Alzheimer's by neurologists and it was shockingly poor, shockingly poor, and of course, worse with primary care doctors, but about 70% accurate by specialists.

And so the person coming into the office that sells their doctor, they're just having some trouble with their memory. And the doctor does a mini mental state exam and they don't score a perfect.

And they just say, well, here's a prescription, probably have Alzheimer's that is blatantly wrong and should never be approached that way. But unfortunately, too often it's still happening in clinics around the country, you know, and Ms..

We're a little more strict with the diagnostic criteria for and that's, they've been there's really been an evolution within us. But I've recently when I say recently in the past year, adopted a fantastic, biomarker based, test called, the Octave Bioscience M. S.

disease activity test uses 18 specific biomarkers, had fallen to four separate category ages, ranging from things that modulate the immune system and inflammation to myelin, the fatty coating over nerve cells, as well as the degenerative component that is.

And this and and this test allows us to track our patients over time more accurately than the standard MRI. And it's prognostic. Much better than getting an MRI.

You're going to your neurologist as so many people with MS2, and they have their once a year MRI. And they kind of go like this. Fingers crossed that I don't have any new lesions in my brain where it would be far more predictive and powerful to say, hey, we're seeing a trend in these biomarkers.

If we don't make a shift in something that could be diet, that could be exercised, that could be doing some deep dive functional medicine type lab tests, if we don't do something, chances are greater than not that you will have new lesions in the next six months.

And that's a far better position to be in to have that advanced information so you can take action before the house burns to the ground. We're not, you know, still a tough go with ALS.

Finally, there is an evolving diagnostic criteria, but most people don't present with full blown ALS. They may have a little drop foot or a change in their voice or swallowing.

Of course, it evolves over time, but they may not initially meet all the criteria. And, we have more work to do with biomarkers in ALS, but there they are coming along.

So diagnosis is is key. And we call that the identified pillar index. We can I wonder whether since you're talking about optimizing lifestyle and nutrition and movement and exercise for those patients, have you or have as there been any data on the effect of intermittent fasting on the brain and brain health, or an aging in the brain, or what gets secreted in the brain?

Can you talk a little bit about the role of intermittent fasting, or the science behind it into the early stages, or just the healthy aging? And or what happens to the brain when when people are on fasting?

Yes. And I want to sort of step into that as we get into our second and third pillars, which are I, investigate and integrate as we investigate. What we're talking about is doing the number of tests to identify some of those root causes of diseases.

Now, for example, and this gets into things that relate to the fasting mimicking diet. We can look at nutrients, that are say antioxidant.

Intermittent fasting and the fasting-mimicking diet

We can look at mitochondrial function. We can look at the immune system and immune mediators. And so forth, and really identify where those imbalances are.

And then with our integrate pillar, I say it's like taking the puzzle pieces from a 500 or 1000 piece jigsaw puzzle. And throwing them on the table. You have all of this information when your doctor does a test.

People love tests. It's sort of part of our, you know, medical culture. You know, your doctor loves you if you do a death, if they do a test on you, you know.

But the reality is, I tell patients head test does not make anyone better. Tests don't fix people. Tests do one of two things. They can confirm a diagnosis.

They can identify a root cause. And then another thing that tests do that's very powerful and this is very important to the fasting mimicking diet, is that tests tell a story and stories our brains.

This goes back to Joseph Campbell and you know, other people, Arthur Kleinman, the illness narrative that our brains connect with narrative, they connect with stories.

And so ultimately, what we're asking our patients to do if we want them, for example, to use a fasting mimicking diet for a week, if I just hand a patient in my own, comes to my office, you or one of your beautiful boxes and say, okay, go home and do this right.

They're going to look at me like the deer in the headlights. What am I talking about? Why should I do this? Who wants who would want to do this? I love food, why should I give up food right.

I think that fasting mimicking diet on a personal note is a very interest. It's a very transformative experience that, you know, and you probably heard this a million times, but I always thought that when I first did it, that the hardest part was going to be sort of the the limitation of the food, the caloric limitation.

I'm going to be very hungry. And, you know, there are times where little on the hungry side, but that is not really what I got out of it. It's a whole person that what I got out of it, besides all the sort of wonderful stuff at the cellular level, is I learned a lot about my relationship to food.

Why do I eat? Why do I eat as much as I eat? Do I really eat when I'm hungry? You know, all of those things. And so that was a big, unexpected bonus. But you have to get people to a place where they're willing to do these things.

And you can do that with information about oxidative stress, about inflammation, about toxins. Of course, we can talk about things like senescent cells and your mitochondria and my autophagy and autophagy and even stem cells that obviously relate to the right, at least, the reseeding component of the fasting mimicking diet.

But we have to get our patients there. And so the testing and the narrative and the integration then leads to an implementation plan that most certainly can include nutrition.

And I know I mean, you do what you preach, right? So I know you're, yeah. Right before the call, I ask if you've done prolonged the fasting and making diet and to my surprise, almost every physician we talk to has either experienced with it or and I think that's a testimony for the science.

When the doctors and we know how doctors are reluctant to do some things themselves. Right. Healthy habits and or, or the tradition, you know, products and, or even, you know, pills that they recommend.

So can you tell us a little bit about your experience with it, why you did it and, and, and how many cycles and what was the health outcome or the emotional journey through it?

A personal note I've probably done 7 or 8 cycles of prolong at this point in time. You know, as a product, you know, under the net, the brand name proton, it really kind of came out with a bang within the community that that I was, you know, my people, as it were.

And so there was a lot of interest, and I was unfortunate and my health, too, was not that I was per se treating disease. But, you know, we're not positioning this at all to treat disease.

We're understanding how nutrient, nutrient density, how energy, that we, get from the food. That's a piece of the puzzle. How caloric restriction, and then ultimately repeating plays a role in sort of the clean up and rejuvenation process.

To mitigate some of the natural effects, if you will, of aging. So I really approached it that way, and I did it. I married, and so my wife and I did it together.

And I strongly recommend that anyone considering this have a partner, even if they don't live together. It's kind of an accountability partner. You're checking in with each other?

I wouldn't I don't want to discourage people from doing the fasting mimicking diet, but I would only say that if you have a spouse at home and they are not doing it, and you're sitting around the dinner table together and they're eating a big bowl of whatever, and you're trying to do your a packet of soup, that's not going to work too well.

So, you know, it's not that you can't do it on, you know, on your own, but I think it's far better to have some kind of accountability person that you can share your experience with.

And what were the what were the outcomes that your experience and how was your how was your journey through the five days and what what were the outcomes that you were looking for from it?

You know, I, I first of all, I have to admit that I'm not sure I, I, I very much want to have a discussion. I hope we get to it about, caloric restriction with optimal nutrition and things like that.

But I was very well aware of sort of the history behind the fasting mimicking diet is, is, you know, this is really science that goes back at least probably 100 years.

And I personally was very enamored with, a, a, a pioneer in the field that preceded Doctor Longo. But Doctor Longo is his protege, named Roy Walford and spent a couple of years traveling the country giving talks about ALS, and how Doctor Walter's work, both contributed to a more integrative approach to how we can think about ALS, but also that he himself was affected by ALS in the end.

So that that was fascinating to me. You know, from a physical perspective, there is, of course, a little bit of weight loss. I don't carry around a lot of extra weight.

But, I tell my patients this is not the main goal. And even if you lose a few pounds here and there, you you may regain a few pounds after you start feeding again.

But you probably will lose a little bit of weight. How are you going to feel energetically? Right. Let's. Does the brain fog lift things like that? And then, you know, on the other side of things, as you recede, as you get back into a routine, even if it's, you know, an anti-inflammatory, sort of modified Mediterranean type diet, low carb diet, you're still probably going to go from that, low of 809 hundred calories a day.

Public health, inflammation, and brain aging

Back up to you know what, at least probably 1718 hundred, if not more calories a day. And that that's a really, that's an eye opener. For anyone, I think, who has has experienced the fasting mimicking diet because, first of all, you know, I worried, can I even do this?

And what is it going to be like to be so hungry? And I don't, for example, endorse things like water fasts, which I know have become popular. I'd rather see people do, fasting, mimicking diet or other strategies that where they're still eating.

But that being said, it was a huge eye opener for me. Beyond the physical. More on the spiritual and emotional level to understand my relationship to food, why I eat, how much I tend to eat, why would I bother to have second eyes?

You know, I know that when when you have that first day or so of the fasting mimicking diet and like that's only like 12, 1300 calories, that's actually plenty of food.

You know, and then you have people that are consuming 3 or 4000 calories a day. And it's not because they're in the gym or, you know, training for a triathlon or marathon.

And they have to meet their caloric needs. Now we we just have an addiction to food in our country. Yeah. And like to I know you in the medicine. You've done public health.

This is something we shared with each other and in based on everything you're saying, what would you wish happens as a societal level at the public health level that could mitigate a little bit the onset of chronic neurological disease or the slow down the progression of neurological diseases.

And just sticking with the theme of food, because there are certainly other things that need attention, and we can get to that. But a little bit, you know, I know it's mainly, you know, the, the fasting mimicking diets summit, but, you know, we really just have to get back to eating real food and understanding the things that contribute to chronic inflammation and all the other associated problems that that lead us down the road to disease.

But, you know, the the real basics and, you know, when we get on these podcasts and summits and I hear people criticize the doctors for how they approach things, or, you know, one of the doctors just going around treating root causes of disease, I say, well, in part because we interact with real human beings, and real human beings are not perfect.

Grew up in the Coca-Cola area, you know, you mean it's not a staple, right. And we have to shift thinking, we have to make sure our patients who are coming in sick and often nutrient depleted, contributing to why they got sick first, understand their relationship to food first, understand that while food certainly should be something of pleasure, I would never want to take away the pleasure of eating.

But we have to shift the thinking that pleasure does not have to be a Snickers bar. You know, pleasure can be, beautiful piece of fish and colorful plate of vegetables.

Right. And so getting back to eating, quote, eating real food, is the first step. Correcting nutrient imbalances, going hand-in-hand with that, eating more polyunsaturated fatty acids in our diet.

I am not a huge believer in a lot of saturated fat. I think that was a mistake trend on the part of some of the health partners. And you know, paleo folks, because we see too many problems with high saturated fat diets and particularly are equally for patients.

But really getting people to reassess their relationship to food. Now, certainly, you know, you I'm sure you have seen this and people have talked about it.

I talked to patients as well. Maybe they're diabetic or I don't know. And I'm saying, you know, it would really be helpful for you to work with my dietitian.

Well, I work with the dietitian and they tell me I need to eat every three hours, right? Every three hours. I'm like, no you don't. As a matter of fact, you need to give your gut a rest, right?

So this time restricted eating, intermittent fasting, you know, cycles of a fasting mimicking diet really is that part of that whole process of healing and mitigating some of the things that ultimately we put under this umbrella of aging?

We're not going to stop aging, but we want to age the best we can. And there's a lot of premature aging, you know, shortening of telomeres and all that that comes with these lifestyle factors.

So if we can use these tools, then we can live the longest possible life with the best possible quality of life. You know, and I know you're passionate about chronic inflammation, which is where neurology now is heading is it's it's inflammation, metabolic health that are leading to the acceleration of aging and neurodegenerative diseases.

And we started calling Alzheimer's. And the origin of diseases is diabetes type three. Right. And and everything with you're talking about the movement, the fasting the eating healthy is probably going to slow down that chronic inflammatory hyper excite it always immune system breaches in the gut in the gut barrier beaches, in the blood brain barrier is and this toxic environment that's happening in the brain giving us all the time, this brain fog, this this feeling of depression gaining the weight and then accelerating the aging of the brain.

And now we have ways to measure the aging of every organ. And I recommend that a lot of people look at the age of their brain, make sure you decrease chronic inflammation, make sure you don't have high spikes of blood sugar and less carbs.

So and that your protecting this the brain from everything toxic and metabolic happening into the blood. Probably one of the ways that functional medicine actually supports patients to to not get faster or evolve faster when they have neurodegenerative diseases.

Yes, we have to allow, you know, when we deliver these nutrients to our bodies through food, you know, we're giving these substrates that allow our mitochondria to function, our immune system, make hormones, neurotransmitters, and so forth.

But the other piece of it is kind of like when you go to the gym and you work out and you have maybe you have a very strict workout plan. If you're an athlete, you're, you know, but I tell people that the gains made through to, through specific, targeted exercise.

So you want to get strong, you want to do a bench press. My goal is to bench press 200 pounds. But right now I can only do 150. So I'm going to go to 155.

I'm going to go to 160 little by little I'm going to get stronger. Right. But the gains are not made in the gym. The gains are not. That is the automatic stressor.

We then have to let the body go into repair mode and it's repair mode that actually allows for growth and evolution.

So then you can do that 200 down eventually do that 200 pound bench press and that says if every day I'm going to the gym and doing like this and I never rest, I will actually get weaker.

I will actually break my body down. And that's the parallel that's so important for folks to understand about this fasting, mimicking diet. You don't live your whole life at 800 calories, right?

But you by giving your body a rest, then it allows for all of these repair mechanisms to set in. Like a challenge. Thank you very much for for this critical information.

Again, you're the first one urology physician that that I've met, and I've met thousands and thousands, as you know, with, with crossed 12,000 doctors working with people on and on the fasting nutrition.

But I think the world needs more people like you. Look at the root cause of neurodegenerative disease. That's the biggest failure in medicine, right? We do have some solutions for cardiovascular.

We do have some solutions for cancer. We do have some solutions for, other health conditions, autoimmune etc.. But neurology is like is is, as you said, diagnosed scenarios.

And I think this is where prevention functional medicine and lifestyle medicine. But you mentioned nutrition and intermittent fasting, exercise, stress, sleep and social capital and happiness are really key for us to delay this process of aging, which is really the common trunk of the tree, leading to neurodegenerative diseases, and then helping our patient and that accelerate those conditions once they have them.

I appreciate your time today, and I want to thank you very, very much for this wonderful episode. My pleasure. Thank you for having me.