Introduction to Joseph Antoun and Longevity Medicine

Welcome to the Broken Brain Toxic Gut summit. My first guest is a dynamic and visionary leader at the intersection of medicine, science, and policy. Doctor Joseph Antoun stands as the driving force behind L-Nutra groundbreaking initiatives in health and longevity.

With a distinguished background in medicine and a PhD in biomedical sciences and a master's in public policy, Doctor Antoun has seamlessly blended his expertise to redefine the landscape of nutrition and wellness.

Doctor Antoun is dedicated to pioneering and innovative solutions that transcend conventional approaches to health. Under his guidance, Elektra has emerged as a trailblazer in the field of biotechnology, leveraging the power of fasting, mimicking diet to optimize health and promote longevity.

These cutting edge programs harness the body's natural ability to regenerate and rejuvenate. Offering a novel approach to overall health and longevity.

Doctor Antoun, welcome. Thank you. Jason. Hopefully, you know, I always try to get one thing at least. And off those interviews. If we change somebody's life, that'll be more than enough for us.

Well, you know, that's that's what's it like? Honestly, that's what keeps me coming back to these types of things, summits and documentaries and, and really, on the educational side is because really, that's all it takes.

And I remember that that was the case for me and probably for you. There's these little moments in our sort of educational journey, these moments, these things that kind of crack open our previous paradigm that launch us into a new trajectory that will benefit on us, on our personal journey and inevitably, the people around us.

Right. So like these things, it can be such a small little thing that just changes everything for so many people. And that's why I love it. Yeah, I think, I think that they were going to change really lives.

So absolutely. Yeah. My first question really for you is kind of what got you into this, this pursuit of longevity. I mean, this is a this is a journey that we actually kind of share.

I kind of wandered into it, but. But I'm curious, from your perspective, why is it an interesting thing at this point, moment in time, to focus on longevity?

Yeah. I mean, at some from, a thousand viewpoint, every physician who is focused on this, that should be the medicine that we do medicine in, is such a convoluted way that the goal was to I actually, you know, live this last week I asked the physician because I was frustrated a little bit with them was like, they keep, you know, adding pills after pill after pill.

And every pill is for the rest of your life, like the pill, cancer, cholesterol, and one for triglyceride and the one for blood sugar and then one for blood pressure and all.

What you need to do is to change the lifestyle of that person. And then you would, you know, save them all the medicines. And I did. I said, okay, this is a true story.

And literally last week I asked the doctor, I was like, what do you feel your your mission is as a doctor? And the blunt answer was to prescribe medicine.

It wasn't to heal, right. It wasn't a cure. It wasn't to sew the foot inductor to practice longevity. That's actually medicine or even health care, right?

It's a bit like the root of the word doctor comes from to educate to teach. Right. So they should be really, a shepherd, on somebody's journey toward health and longevity.

But of course, our modern medical system is really it's not designed for that. The doctors that come up through that system, I think many of them want to have a good life for themselves, and they want to help the people that they're working with, but inevitably they get shunted into this paradigm where it's, you know, and I think anybody who's listening to this can probably relate where most of our doctors are, there are there to acutely try to get us some relief from whatever symptom that we're dealing with.

Right. And unfortunately, many of them miss this fact that what might help me today may actually hurt me next year or next decade, or for the rest of my life.

And that seems to be the paradigm that's missing. And although I will say it's changing, thanks to people like you and and many others, there is a shift happening.

And I think however slow it might feel, it also seems monumental. Yeah, but but doctors are victims, right? The the amongst the brightest. They went in with a mission to help people.

And then. And then they get slammed. Right.

Why Modern Medicine Needs a Longevity Focus

So, so we as doctors we you know, we read we read whatever is published on the drug and whatever gets published is whatever the money comes from a clinical trial and typically comes a little pharmaceutical company.

There's, you know, a life summit, a small gym that, that, that preaches a lifestyle or exercise doesn't have enough money to put the clinical trials. And the money lays with the biotech and the companies.

So and it's it's a cycle, right. You publish the data that goes into the books and the medical book, then you think that's the only solution. And the FDA is mainly here to regulate that, but mainly as a drug administration.

It's not a food and drug, it's mainly the drug administration. And then, there's a big process and you need tens, if not hundreds of millions of dollars to bring something that is FDA approved to the market markets.

It gets filter to a few big pharma owning most of the of the market, which is, you know, there's a lot of good drugs. But this is how the system is mainly and and the doctors have to read the results of, you know, those and they play with the you give them the cards, you get the bad cards.

You have to play with bad cards, you whatever cards are dealt with. And so I wouldn't blame them, I would blame I would still be a little bit that they have to.

But for for that system, they've accepted it and most doctors have embraced it. A lot of them are, including myself, you know, worry about a little bit against their system in a different ways.

If you're a small rebellion, you're part of the lifestyle, medicine, the new life. So and we have the American College of Lifestyle Medicine, which they're doing amazing and they're growing pretty fast.

So you go a little bit further. You want to dig deep into root cause your functional integrative medicine like it's a little bit bigger rebellion if you're all the way on the other side.

As I was, I left medicine because of that. I, you know, and I had everything in front of me, you know, was a hundred grand and MD, PhD and everything.

And you did all the things and I had it, I had it all, all rolled in front of me. But I rejected the system was like, I cannot just, you know, put the stethoscope in the same place, you know, at the heart and then give the same

medication and all of then for the rest of the, of the patient's life. And it wasn't treating anything.

It was just moving the sugar from the blood to the cells. I was just artificially dropping the blood pressure in the day of the day. They stopped the medication. It's not after six months.

The day they start the medication, the next day the blood pressure is up. It was the most, you know. So I rebelled against that. And first I went to health policy and public health.

Thinking that I would do more prevention. I would push health systems to be more preventative. And I did that. And I advised a lot of ministers of health, but it was difficult because people like to consume products.

When you tell people eat healthy, everyone knows that eat healthy, exercise, stop smoking. So it became a commodity to to preach lifestyle medicine in in.

Still when if you're hungry and there's a very, very in front of you, you know you're going to eat it. So so you had to tackle, you had to bring a healthy longevity product in.

This didn't exist 20 years ago when it was medicine. And so this is when I, when I tried to go and learn, the business of bringing products to the, to the market and, and, I met this amazing founder of our leader, his name was Professor Walter Longo.

Probably many of our listeners have heard, you know, that name is the author of the Longevity Diet book, which everyone should read, the ones in that book, a big Amazon bestseller.

And he convinced me to go into nutrition as medicine because food is the only product we can play 100% on. We eat it every day. We consume this product every day of our lives.

We do it 3 to 5 times per day. And we do. We did. They were born to the day we die. So for me, this was the biggest medicine or the biggest poison. Obviously it is a poison.

Today it's behind lifestyle. Medicine, including nutrition is behind 80% of the chronic disease that we have. And so I became passionate about how can we bring pharmaceutical level of science, hardcore medicine into the tradition because the big nutrition companies, they don't do that.

They want to sell us a little bit here and there, some excess carbs and sugar and cheapen the ingredients to make bigger profits. So we decided to build the first in history.

What we call nutrition company biotech is they bring drugs and we are a nutritive company. Ultra L is for longevity. That's neutral. So longevity through nutrition.

We're the first nutri technology company. We bring food as medicine, food for longevity. And we study mice trials, human trials the same way you would do if you're developing a drug.

And we go head to head in randomized clinical trials, head to head against medication, and we show health outcomes. And I can tell you that we have today 47 clinical trials.

47 you know, the JLP ones are the biggest hype today. You combine all the G at one trials at Lilly and at the together. They wouldn't they would be less proven than the 47 clinical trials that we have on the fasting.

We're making diet. That's our core technology core nutrition. And and we're so happy we're able to do it the right way. Bring evidence based medicine into nutrition, and start developing nutritional products for longevity.

That's called the Pro line or promoting a lunch of is the problem. Part of our business. And then we have food as medicine, nutrition as medicine, and as a neutral health part of our business.

And today with, with touch over 1.2 million lives, and pretty happy, we have over 20,000 clinics in the US that have signed with us to, to to recommend our nutrition.

And we started with about to start our very first ever reimbursement, meaning getting insurance to pay for our products as a, as a official medicine. So pretty incredible journey.

Yeah. Congratulations on that. I mean, that's it's a big step because, you know, at the end of the day, the the dietary aspect of health and medicine, it's always been a tricky one.

And, and how do we incorporate that. Right. And you know what I find fascinating too, about, and by the way, I've used proline many times myself. I've, I've recommended to, to many and many of my clients, because it is not only effective, but it's doable.

And this is kind of where the irony of, I think Doctor Longo's work, you know, the things that you've done, my work in longevity, you know, we recognized there's this thing called fasting and it's been around for thousands of years.

It's been associated with many religious texts. It's been associated with many indigenous cultures. You know, things like Ayurveda and Chinese medicine.

They've known about this for a long time. And the irony is, okay, we're going to help people with diet. And then the, the, the fasting is what don't eat.

Right. And, while really, really effective and there's a variety of ways to do fasting, it's also difficult, for many of us, who don't come from that type of a culture, perhaps.

How do we do it? How do we succeed in doing it? When do we do it? You know, the clinical effects, and I want to get into this, are really well known. And there's a practical application that I find personally can be difficult.

And many of my clients find extremely difficult to stick to. So, this is where kind of what's cool about Doctor Longo's work is. And what you guys have done is how do we get those same effects of fasting without making it so darn hard and potentially mitigate some of the downside effects or risks?

Right? Because if somebody goes on a ten day, 20 day long, fast and there's even longer, you know, you get some muscle wasting, there's that blood sugar dysregulation.

So if somebody is really sick, this can be a difficult journey that they often need to work with a medical professional with, however prolonged and what you guys have come up with a al-Nusra kind of, allows us to do it in a safer, more effective way that doesn't require so much, medical assistance or monitoring.

Building Nutrition as Medicine at L-Nutra

So before we get into that, though, talk to me about the health effects of just fasting in general. Like, what do we see typically as it relates to brain health, mitochondrial health, what's happening there?

At the sort of biochemistry level? Yeah. Well, the, the we saw it in Doctor Logan's work started 26 years ago about fasting, water fasting before we got to the fasting mimicking die, which is a much more enhanced experience.

And we'll talk about that. We started as a water fasting researcher, and we started studying what happens in one hour of class two hours, ten hours, one day, two days, three days, ten days.

And, we were doing this at USC and other labs, in, in these I'll summarize it in two phases. There's one phase of fasting and we call the intermittent fasting, which is between zero hours and two days in, and I call it the metabolic fasts, which is the body defends itself in a metabolic way versus intermittent fasting.

We'll talk about that. And there's the periodic or the prolonged fasting, anything after two days or three days and

above. And why this is a different phase, because now the body involves the cells in autophagy stores.

And and we'll talk about that. But there's a cellular rejuvenation. There's a deeper, you know, coping mechanism that happens in the body with a deeper cleaning.

It's like it's like bringing in the professionals to deep clean your house. It's different than just having somebody kind of go through and clean things up.

Yeah. So to explain this in an easy way, I always compare the body with no food, fasting to a company with no funds. Right. If you're running a company, say, and you need $1 million per month to survive, it's like the body needing whatever 8600 for an average person calories to survive.

So what do you do if you don't have no funds? The first thing you say, you know what? I'm going to go and use my checking account. That's the easiest way to put some money in.

The body does the same thing. The first few hours the body goes to glycogen and and it's the easiest, you know, source of calories that you can pull from.

And this is this is like stored sugars. You could say. Right. Exactly. And then if you go longer as a company and say, you know what, I'm going to tap into my savings account and the body does the same thing.

You know, end of day one, early day two, the money goes to fat and say, I'm going to break it down into ketones and I'm going to use that source, my, my savings account.

And, and by the way, this is like we have sort of, I would say different, almost different savings accounts. Like there's there's immediate immediate fat that is available.

Right. It's not. In other words, it's not pulling it from your thighs and doing all the stuff. It's it's like we have fatty acids in the bloodstream, in the liver.

There's places that we can immediately pull from. And it kind of goes to these easiest sources. Right. It's like it's pretty logical how it actually winds up working.

Right. Which is great because it's essential fat as well. Right. Which is the, the, the the one that that creates inflammation. And so the resistance which we want to get rid of the, you know, first.

So now you as a company, you consume your savings and you're checking your savings. And then what are you going to do. You're going to talk to the bank.

Maybe you start using your credit card or, or talk to the bank to give you a loan in the buddy on day to another day to swimming. The same goes to the liver and ask for a little bit of an extra dump that we call that new glucose release.

Can you liver help us take some of your savings and dump it? Credit the the body with it and this happens. And if they do so now the history starts. And and you as a, as a CEO of a company or the management team, you spend you're spending your money, you're in a crisis.

This is very important in this sort of crisis because fasting is very different from low calorie diets. It's not. So I'm eating a little bit, a little bit less and therefore it slows the body.

No, no, no, it's a crisis. And when you run the crisis you're going to restructure the company and say, look, I got a six sales, I got a six marketing.

Again, I spend less money on travel. So the first step of fixing, of restructuring the company, do the easy stuff, which is let's cut some travel budget, unnecessary investments, stuff like that.

And the buddy on the three does the same thing. The body tells the cells we have 37 trillion cells in our body. The body tells the cells, I cannot nourish you now.

Any longer. You got to be on your own. So the cells were all started by, you know, looking for the breeze, organelles, this function with the country and tries to, you know, use them.

As a source of calorie in this process of rejuvenation or intracellular restructure as well. We'll call it autophagy. Cells eat auto phasing in this process.

Won the Nobel Prize in medicine in 2016, was awarded the Nobel Prize in Medicine in 2016. And it's a big cellular cleanup. So it's very interesting for a company just to restructure because this is where, you know, something.

Sometimes a company grows and and, you know, leakage of money here exists. And there we forgot we're paying this consultant this much. And coming back and restructuring is very important.

Now you're going to pay for it. Day five and you're going to almost go bankrupt. And you're going to unfortunately, take now a deeper, intervention as a CEO or a management team.

And you're going to start letting some people go and you start by those who are not your superstars, or they have high salary or, you know, they just you have to do that.

You know, there's not efficient, right? These are not efficient employees. And so we got to get down to the core essential, efficient workers to make this thing go to, to to really accomplish the central functions.

Right. The essential things that the company cannot live without. Yeah. In this way you fix the technologies, you fix the basis of what makes the company, you know, the body on day five, that's the same thing.

The money they five see that it's looking. It's like, okay, some cells are just all senescent. They're just creating inflammation, meaning they're spending even more of is needed then enticing the T-cells to come in and you see the clients, etc..

So the body says if you're too sick or too old, sorry, I'm going to kill you. I'm going to send you to apoptosis. I'm going to get rid of you. I cannot fund you any longer.

I cannot create the longer. So while other says you. Day two of the three and four is very much talked about what people didn't know, it is what Valter Longo brought in.

Is this the regeneration that happens on the inside? The body is letting go. Some cells and is pushing the younger stem cells. Because the younger stem cells are very cost effective.

They don't carry as much DNA damage, they're not as worn down, etc., and they're very cost effective. Well, the way they deal with calories, so we have shown is place instead in pluripotent stem and stem cells in the blood around that day five, which is very important.

Now we're regenerating the body in. And how he learned all this is he was a student. He was a PhD with Roy Walford doing that by sphere. This is a project in the desert as a zone.

Some I don't remember 30 years ago, probably where where people secluded themselves. Roy Walford, who was a big nutritional expert at UCLA and they started eating 30% less every day for months and months and months.

And they when it came out in Valter, Professor Longo or founder, he was the PhD student helping Rove also at that time in what was fascinating to him is when they did MRI's on the organs, on the body, after several months, it wasn't fasting, it was just eating 30% less than the organs.

It had shrink and these were not dehydrated people. And then when they were reset normal calories, the organs

grow back to normal size. So he was like, how come at adult age we can still regenerate the organ?

These were cellular replication. It wasn't the hydration. It wasn't just it's a a growth at a fat storage or whatever. It was a restoration of the cells.

So he was like, can I replicate this where the organs are shrinking me? They're getting rid of unnecessary cells in the regrowing residue stem cells. Can I replicate this instead of eating 30% less for months and months and months and getting and losing bone and losing muscle mass, etc..

Can I get a crisis? Can I get an acute signal to awaken the stem cells and regenerate the body and getting the body into a younger stage? And this is why he tried.

They went to water fasting to try to get this acute system acute signal. And it turns out that you need the three and then you need the five to do the cellular rejuvenation and then the cellular regeneration.

If you go longer, you start getting into bankruptcy. Right? The company at the end needs money to. And by the way, when you give money back to that company, you know it's optimized.

Systems are fixed. Yeah. Your best employees this way. It goes back and it grows in the best way.

How Fasting Mimicking Diets Work

And this is why we we can has determined that five days was an ideal periodic fast to metabolically lose the fat, improve in inflammation, improve, blood cholesterol triglyceride.

But then to add the cellular rejuvenation regeneration in then that is the only time in history where you have a metabolic reset and a cellular regeneration happening at the same time.

And this is why we thought fasting today as a big longevity, as a big bio age reversal intervention. This is what made fasting very famous. It was in, you know, a weight loss, another new weight loss.

And it was one of the biggest discovery is autophagy. And how fasting is helping. Yes, with weight and the athletic markers. But it's also making you younger.

And when you're younger, this is the most important intervention. You can do it for healthspan in longevity, because today 83% of us, close to 87% will die with one of the age related diseases, right?

87% of us will die. Not of a plane crash or a car accident is going to be diseases for diseases, Alzheimer's, age related cardiovascular, age related, diabetes, age related and cancer age related.

So the best thing you can do not to have a person live healthy long is to get them younger. And if you want to get them biologically younger, you know when they're 65, about to get the first heart attack.

You want to you want them to be 50. Biologically. The best way we know today in medicine to do that is the periodic fasting and fasting for five days, based off of the research that we have now.

And I think we're going to have to make a little bit of a leap here because we can't do research on everything. But from your understanding, is there any real chronic disease that cannot be helped with the the appropriate type of fasting?

The answer is because we're scientific people, so we haven't we haven't tested all diseases. Therefore, I cannot say we can't say guess I have to make some leap.

Yeah, but the core of your the core of your message is like it can help almost or a lot of chronic disease, which is true. Well, and the reason I ask that, because I remember speaking with a mitochondrial researcher from, Europe,

actually, and I remember vividly he told me there is no disease in which the mitochondria are not involved.

In other words, when we damage mitochondria and mitochondrial DNA, eventually the cells in the tissue will break down to such degree that that chronic disease inevitably, comes.

And so if we can improve mitochondrial health, this was his logic. And so I'm applying this to here that we can improve pretty much any condition, even the premise, the starting premise is not totally accurate.

Meaning? Meaning if mitochondria was the essence of the disease, you're right. The problem is sometimes minimal is the consequence. Or is it is it is not the causal.

Sure, if they're just involved, it's involved, could be involved as part of that condition or as a consequence of that condition, but that as a main reason.

So even normally even with technology, sometimes it's not enough. Right. I'm thinking about, you know, let's for example, right. Huntington's disease, like you have a major genetic, you know, the fact there that you cannot fix by just fixing them in the country, they were not the reason behind the condition.

So I don't agree on the the premise. But then once you start from that premise, that is wisdom ethical. And, you know, if medical and it was the major reason why that is there, of course it would help it.

And then whenever. So so yeah. So that five days of fasting was, was unlocking because 90% us to to to to complete your question and my answers. Yeah you're right 90% plus of conditions are either metabolic cholesterol to this right weight gain insulin resistance or the cellular cancer or immune.

So fasting is fixing those two at the same time. This is why it's like such a massive intervention. There's no one pill actually. There's probably going to take 5 to 10 pills.

And so you would not mimic the benefits of fasting. They're so powerful. And the the impact every cell every cell lives on calorie. So the like fixing every every cell goes to that process almost in the body.

On top of that is such a deep existential push to the cell to fix and to the metabolism to reset that is so powerful as an intervention. But as you said, fasting on water for five days, right, is difficult.

Is is on the CEO of that company. And I don't want to go close to bankruptcy. That's not fun at all. And there's also side effects, right. So we're talking about the amazing have benefits, but there are side effects.

So I'm going to have a headache because my brain is going to be like hey, I'm hungry. Unit feeding me. I'm going to have a little bit of fatigue. The muscles are not being, you know, fat.

Some people have like a flu like syndrome because the kidneys are also like, you know, washing everything coming out of orifices in the blood. So there are side effects to water fasting and, and actually this happened to us.

Right. So we showed in mice the amazing benefits of water fasting, taking diabetes cure rates in the 90%, taking cancer actually cure rates double digits up.

And in a lot of conditions. Then we go to human trials. As I mentioned, we're a company that likes to like medicine develop. You know, the products is in a randomized clinical setting.

And then we partnered with Mayo Clinic to do the first fasting, actually water fasting in in cancer patients. And, you know, patients and their doctors that were too fast for 4 or 5 days, it was too difficult.

And this is where we went to the NIH, the National health. And we tell them, look, we have amazing mice data. Can you help us? Give us a grant to go and develop something that we want to call the fasting mimicking diet?

We started studying how the cell records that it was sent. So what are the receptors we call the nutrient sensing pathways on the cell that tells the cell there's food.

And we devised this whole nutrition protocol for five days that actually does not trigger the nutrient sensing pathways. So you're feeding now the body.

It's a big oxymoron, the fasting mimicking diet. It's a big oxymoron. It's basically nourishing the body in a very, very special formulation that took us $48 million and 14 years to develop.

Well, one you can eat for five days when you look at it, but the commercial name is prolonged. You look at it, it's the form of suits and bars. And so you think it's like normal food, like, but actually it took us a lot of, again, 18 universities together, 47 clinical trials, $48 million, just in the in the basic concept to figure out how much carbs I can give you, what time of the day, how much of our proteins, which sequence, what time of the day.

Salads, minerals, nutrients, vitamins, etc. all of that. So that actually, nourishing you for five days. But the cells are not recording, they're not registering the food.

And by that giving you the benefits are sensing what actually mitigating a lot of the side effects. And initially we were like, hopefully we'll be like 70, 80% like water fasting and then and when we went head to head, water fast and the fast significant diet, there was actually better performance on this last thing to make in mind.

And we were shocked with that. Like what's going on in here? And then then logic comes comes in. Same thing about the same example. The company doesn't have funds in, you know, what happens that CEO and the team is you don't have money.

Your best employees will leave as well because they their your company is at risk. You cannot order supplies to sell next month. So there's a lot of side effects.

But if you go to that CEO and he said, okay, you need $1 million, I'm going to give you half $1 million. Just put it to retain your best employees purchase, put your purchase, place your purchase orders, make sure you pay electricity, whatever you need to operate.

And then there's still a stress of half a million. And then that led that stress push to rejuvenate. That's exactly what the fast they were making. That was the way, especially with the restoration, because if you want to form to use themselves, if you want to replicate, if you want to protect muscle, one of the biggest actually difference is when you do the first thing we make in light, we're showing no muscle loss and we're showing a better iteration of cells because you're giving you're feeding the muscle, you're feeding the restructuring of the cells.

So you're financing. You're funding. That restructuring in the body goes through with not just smoothly, but actually even more effectively. But one of the one of the early lessons I learned in sort of the integrative functional medicine world was just how important blood sugar is, right?

And and even, you know, standard medical system understands it's why they always take, you know, your blood sugar. So mismanaging blood sugar is a big, big deal.

And so right now we have a lot of people that struggle with blood sugar regulation, insulin regulation. So when you if if you take somebody that has a little bit of metabolic dysfunction or even a lot of metabolic dysfunction, and you go straight into a five day or longer water fast, there's a lot of blood sugar dysregulation that happens in that.

Now, hopefully there can be a reorganization, so to speak, and getting to a better place, but that can be a really rough journey. And, and again, the fact that blood sugars all over the place actually points to the fact the body's unable to do what it really needs to do.

So this is one of the benefits of some for somebody that has some of that metabolic dysfunction is they don't have to go so extreme to that degree to get the benefit.

When they can get some of the macromolecules, the proteins, the carbohydrates, the fats to help regulate blood sugar while also improving it like it's in other words, it's a more gentle, affect and smooth transition to a healthier state.

It's literally a healthier end state. It's not just this, you know, temporary effect. We can actually drive permanent change, in such a more gentle way and again, more gentle on the body and easier.

Fasting, Chronic Disease, and Cellular Rejuvenation

Right? So to me, as a practitioner, there's more. And the longer I do this, the more I lean into what's practical. How do I get somebody to actually execute the things that I'm that I'm trying to give them?

Because if I make it too challenging, too extreme, then they're just going to fall off. It's just too much. Right. And and ideally as a, as a practitioner, I'm giving them multiple things.

So if I'm giving them five different things to change and they're all very extreme for this person, there's just no chance. Right? So to me, this is where something like prolonged is such an effective solution because it's practical and because it can be repeated.

I think that's the cool thing, is that we can initiate this first change in month one. We can do it again in month two and continue our path towards a better metabolic state long term, without the extreme and the challenge that comes with something like water fasting multiple times, it I appreciate much what you just said, because that's the main reason why most lifestyle lifestyle changes is we're telling somebody who doesn't like to exercise exercise every day.

We're telling somebody who loves nutrition. You're going to go fast and water fast every day, right? We're telling them, or you going to be on this right now, just go and subscribe.

And every day you get to get your food delivered and every day getting go. So that's a recipe for failure. And, and I think one of the most geniuses genius ideas that we focus on is how do we do something that can integrate rather than impose on your lifestyle?

And, I, I took this quote from one of, one time I was on stage talking about the fascinating, rich, prolonged. And as I was finishing the Q&A, one person said, like, hey, diets, people go on diets, and then you know, one day they start because it's too long.

Two days ago and it was another participant actually stood up, said, I'm approval on Earth, and I love pro and I love it because guess what? There's a day one and there's a day five, right?

There's an end, there's this and that, and then there's just five days. And and actually for most people would just recommend approval. And for three to 4 to 5 days max per year.

So the protocol for longevity, if you're otherwise metabolically healthy you don't need to lose weight or you don't have insulin resistance. You can just do it three times per year, 15 days out of the entire year and 65 years.

Now, most people in those who come to visit you, of course they have some certain condition. So they it has to do with, say, at least three, but then 4 to 6 times per year.

So if you're talking about 20 or 30 days, I remember the, the, the clinical trials that we did, we went head to head with the Mediterranean diet. As you know, the Mediterranean diet is ranked as the number one diet by the American Heart Association.

And a lot of physicians consider that as the healthiest diet. So we did for prevalence over four months it's always five days a month. So anyone here listening to us, you just do parole on five days.

You 25 days if you want to repeat it the next month, 25 days to go back to your normal diet. Or if you want to do it only three times per year, you literally have three four month.

And then you can repeat. But in this case, we did over four months just for once. The total was 20 days, five times four versus every day. Mediterranean diet 120 days.

Consequently, and the results were metabolically they were identical, the same weight loss the same. You know, you know, imagine this that. But then with this last thing, we we can light obviously this artificially.

There's rejuvenation and there was no muscle loss. Whereas with the Mediterranean diet there was a 1.2 pound of muscle loss. So so it's fascinating. We're just about to finish now.

It's 500 patients while we're doing proton alone. The fascinating United versus fasting. We get that plus every day eating healthy. And the results are almost equal which which was mind blowing.

We thought that. And eating healthy was our lunch every night. So we were invested in both. We have a fascination with that. And we have a longevity type that you do every day.

And and the results are almost the same. This is how powerful it takes us back, that it's not a diet, it's cellular rejuvenation. Yeah it is. If one thing I want everyone to take from today's discussion is this fasting is a crisis that changes your cells to better performing you, and the better performing in the younger you is actually what you need to be healthy.

When? When? When I was 20, I did it. I still eat 5000 calories a day, but I still today, if I cheat a little bit, I just cannot get rid of it. So remember that it's about prolonging in the fasting in.

The first thing we make in life is about getting you younger. It's about fixing your cells. Why losing the weight and getting all the metabolic benefits.

And this is why it's way zippier than anything else you can do in, you know, from that standpoint. Well, and what I like to recommend for those who are in kind of that chronic disease state and they want to really make some changes, is 4 to 6 months consecutive of prolonged.

Right. So five days each month. And look you can go to your calendar. You can say, okay, this is the week that I'm going to do, do it right. And you do that 4 to 6 months.

And what I find is that at some point in that journey, they're there. Let's say the regular diet, aside from the problem, starts to change. And it's because what I find is that once somebody starts to notice benefits, whatever it might be, might be mental clarity might be and sleep might be a little bit of weight loss, might be, cholesterol or whatever the case is.

That gives them the motivation to actually initiate real change outside of the sort of therapeutic window. And so because there's a consistency with once a month we're doing this, there starts to become other changes.

And it might even be they start to exercise more. They start to focus on their sleep more. They might work on their stress, component. So so it's like these little changes that they notice in their real life starts to initiate greater change.

And that to me is the benefit. And then what I say is, look, do this once a quarter or do this as the seasons change. But like, you know, pick something in your life that is sort of cyclical, that is calendar based, that is, seasonal, be seasonally based, and then you institute that and look, this is what they do in our data.

As the seasons change, they have this sort of cleanse, this punch of karma that they do. So I find that that humans, we kind of like cycles. We kind of like these periodic points where we can say, okay, this is the time that I'm going to do this thing.

Listen, even nature, when we say seasonal change, what is nature of the way nature is, is, is you know, with the summer you have a lot of abundance, etc..

So a company growing in the body, you know, gaining weight and then even nature goes into autumn. You know, we purge and then we regenerate and we read the trees because every flower, it's unbelievable.

So cycle your laptop when you work on your laptop for days without restarting the laptop will get slower. And if you're in a car race and if you don't take the pit stop where the engine is, come and help you and re fix, you know, everything in life, including nature, including everything.

There's a reset cycle. So this is what happened to us as humans in the last 40 years, and it's exactly how you begin the podcast. It was part of our tradition.

It was part of our religion, even fasting. And then we lost it the last 30, 40 years. We started eating all the time. We started eating in the middle of the night.

We we decreased. We we stopped fasting. We became less religious. And then suddenly that abundance of food is accelerating our aging and accelerating our weight.

And this is why we're getting sicker and sicker and sicker the way in medicine. You ask a traditional doctor, which I was, was say, it's genetic, right?

Alzheimer's is a genetic well, is it is why my grandparents did not have it and and why I said, you know, we have diabetes, you know, multiply 3X4X, increase cancer rates.

Cancer is our us. The roots. And it's all related to lifestyle changes. And at the core of which is saying obviously there's exercise stress, sleep and social capital.

These are the five pillars of health. And wellness and longevity, right. Nutrition, which we talked a lot about. Then exercise and movement, then stress and sleep and then social capital, which is very important, which also we're losing.

With time. So we're going to go back to those five pillars and we'll reverse a lot of all. We're delaying the onset of a lot of chronic conditions and hopefully live a healthier, longer life. Great.

So talk to me about, what do you see in the research and what do you see in your practical observations that you've been doing? With regard to brain health? Right.

This is a big one right now. And yes, dementia and Alzheimer's and some of these, let's say, age related brain, decline is a big one. But foggy thinking, mental clarity, you know, depression, anxiety, these kind of things that are cropping up and that we know that these are related to the gut, we know that there's a food component, right?

There's of course, many other components as well. But how does something like fasting and fasting mimicking diet, create permanent change at that sort of neurological level?

Yeah. Big connections between connection between fasting and brain and neurological health in general is a sentimental one. You know, everyone that does pull on or the family member, you know, they tell you.

Like, I went through a journey, I felt, you know, better mental clarity. The energy is high. The the sleep. Actually on day three, you cannot sleep at night because the cells are rejuvenating and your sleep gets better.

And then with higher quality as you cross day five and the six is a big because again, every cell rejuvenates when you're doing that in and the brain are, you know, it's a lot of fun.

But it cells as well. And, and so so it's one of the organs that go through the cycle. And a lot of people report this

higher energy, a better sleep quality and much deeper and better quality of sleep and brain fog.

And there's a sense of achievement which is very big. We all started. Yeah. I it's at some point of our life we all dropped off its employ. It's feasible. It's five days.

Brain Health, Gut Health, and Mental Clarity

So if you'd like I did something and achieved something and it's very emotionally important. There's there's an expert in in, in in Stanford. His name is BJ Locke.

And he writes a lot about lifestyle changes. And he has the theory of tiny wins. Right. And he says in problem is a perfect tiny one, because in five days I achieve so much, it inspires me.

But as you said, as the four for six cycles, you start on your own, regardless of for a long yeah, inspired to change your life. So we did publish this, actually, we published six month ago.

We were tracking the diabetic patients that have done typically diabetic patients does 6 to 9 prevalence per year, and two thirds of them start dropping medication as a month.

Six the first six months, two thirds of the patients start dropping their medication. They don't need the medications any longer. But then we start looking at the and they're exercising great.

We're not asking them to exercise. Right. And then we saw a six hours difference between the fasting. We we can die in the prolonged group and the control group.

The fascinating. The group has six hours more of exercise versus the control group. This mimics my experience as well. This this is this is what I see just sort of anecdotally.

Yes. The the inspired. They have the tiny wins building up their losing weight without losing muscle. This is huge. We haven't stress enough this point because they're so important to keeping metabolic rate, which is very, very good for every organ in the body.

When you burn, when you have less resistance, less inflammation in this amazing while at the same time you're exercising and you're protecting your muscle.

So this was a tremendous benefit. And obviously when you go deeper and deeper, we we start looking at diseases. We haven't finished our Alzheimer's disease.

That's well, that's a probably a big one I would imagine. That's a very difficult study to do. Yeah. Although the brain doesn't rejuvenate like it's not the brain, but at least there's a phase where in in the brain loves ketones.

So the brain, by definition, loves the fact that we can brain brain love ketones. But we have done we looked at multiple sclerosis, actually, and and we did a mistrial, and we did a first human trial, and we were showing some rejuvenation at the, at the everything autoimmune fasting is, is a very important dementia for not immune disease because the immune system attacking.

And when you fast the body gets rid of the active T cells. The body doesn't allow a lot of replication and calorie expenditure. It doesn't allow high temperatures when you're fasting and then other cells in rejuvenation of the damaged organ.

So we see fasting very beneficial. And every autoimmune all those and the fasting mimicking it. We just finished a trial in Stanford on Crohn's, one with University of Miami and ulcerative colitis.

And in in Germany we we did the multiple sclerosis one. So big benefit on autoimmune some of them attacking the neurological system. This will be done guided obviously by a doctor in the program of dietitians, not just the

product, but we're seeing, you know, a good, good promise there.

One other study I want to mention, since we're talking about the the brain, we at the University of Palermo in Italy, we did a trial on the person and and we only did ten patients in the intervention and ten basically we just wanted to see, you know, first we wanted to see if it's safe.

This is feasible. And it was ten patients only was enough to lead to statistically significant results on depression that we're doing a bigger one. Higher sense of achievement, higher confidence.

It's a lot of those positive emotional, you know, can do and lift up us off of depression. So, those are brain and feelings, specific benefits. Now there's others that that, you know, starting from the gut.

Since this is relevant in here with fasting, obviously you help with leaky gut. The fasting when we can buy it, it shows better results on the gut than fasting because you have the plan based.

So you're basically bringing the food for the healthy. You're helping the selection of the bacteria of the microbiome. We need the water for us. You know, it's a challenging environment for you to have that microbiome.

When you do fasting with proton, you're bringing the prebiotics, meaning the prolonged ingredients as plant base to selectively support overwhelmingly those bacteria that are plant based.

You're helping rejuvenating the lining of the eye tract which we have shown in mice. Actually, did we do it better than water fast? You're finding that that healing of the gut, and this is so important that we know the brain, the the, the gut brain axis and everything related to to leaky gut.

So all these benefits are related to, to longevity and brain health. Yeah. I mean, it's hard to separate gut and brain, right? Like they really do go together, in such a profound way that, to be honest, I don't even think we really fully understand yet.

We've mapped out a lot of of consequence, but we still don't really know a lot. But what I what I can say, though, to it, one of the benefits here is that because you're getting the proteins from the fasting, they're making diet, you're getting the amino acids right.

And amino acids are really, really critical for neurotransmitters. So if we don't have the certain neurotransmitters we're not able to make dopamine. Serotonin. Right.

Like we're going to feel those effects. And as somebody who's experimented a lot with various types of fasting water, fast juice, fast fasting, mimicking diet, things like in our Veda, some of the bunch of karma that are kind of like a bit of a fast in some ways, the the transitory effects, going through that can be very real.

Especially I'd say the more, you sort of severe you get, right, the more toward water fast you get. You can feel fatigue, you can feel. And this is I don't really I mean, I have a lot of energy typically, you know, most of the time, but the fatigue is there in that transitory process.

There's sometimes depression, poor sleep. Right? There's a lack of motivation. These things are very real in that. Again, it's transitory most of the time.

But but that transitory effect, in other words, that temporary effect can be enough to, to derail people. Especially if you're struggling with something like depression or anxiety or low energy already, it's gonna be very difficult. Right?

So having some of those, particularly the proteins, I think, but also the carbohydrates, the plants, as you mentioned, really can have a profound effect in making that, that transitory effect, much, much less, and perhaps not even at all for many people.

Yeah. No, can I agree more? And this is why we developed this fasting when it was in, but many people thought at

the beginning that, you know, fasting became like a good, a good market hype.

And therefore we're taking advantage of that and we're developing the fasting. We were the same team that brought the fasting science and in order to mitigate for all these side effects of fasting, pure water fasting, be it compliance, be it the struggle, every organ struggles with science.

And this is why in the open water race, because it's struggling but it's struggling. And so we developed the fasting. We can dive with the support of the nation sort of health, with the support as many governments have, with money, with us, with the support on Sundays and universities to make sure that we have a way to fast in a compliant and safe way and make it a feasible, experience that you can integrate within your life, yet still get the benefits and some of them being enhanced actually better than water fasting.

Well, you guys have done so much work in research already. The effects are very clear for, for, all the people that have gone through it. But I'm excited for you guys to continue that work.

I think the more evidence that you can produce, the more that just going to, convince maybe some of the people who are, who really just need the science to, to take that step, including maybe some of the insurance companies and the medical system and, to, to actually consider this and really understand the benefits.

So again, thank you for all the work that you've done. Doctor Joseph, this has been amazing. Again, I've been a huge fan of Doctor Longo's work.

Practical Use of ProLon and Closing Remarks

In fact, I interviewed him in, I think, 2017 for, for the Human Longevity Project because I, I recognized the profundity of what he was doing, taking something that we've known for such a long time and bringing the science to it, and really looking under the hood and getting intricate with the details.

Right. So how do we optimize this for our modern culture? And this is, by the way, this is been my perspective on longevity. You know, the blue zone working and studying these people around the world that live a long time, that's fantastic.

But like we don't live in that environment. We live in a radically different environment. So we need different solutions. We can't just only do what they did unless we want to go back to living without electricity.

For the first 40 years of our life and these type of things. Right. We have to take a modern approach. So the science, really bearing that out, not only proving it, but finding the really specific ways that we can dial this in.

And I'm sure you guys are going to continue to do that. As you, as you do this work. But it seems clear to me that that everywhere you guys look, whatever.

Rock you you, turn over, you find some benefits. Which is kind of funny, because I can even hear your voice. Like, there's some surprising, like, hey, it even benefits this, I we can't believe it. Right? So that's such a cool thing.

I think probably as a scientist, as somebody looking at the research, finding these benefits everywhere you look, it's probably going to be a pretty rewarding thing.

No, I couldn't agree more. And and, you know, we have 47 clinical trials today. It's pretty, pretty proven. Of course, we can do more and we are doing more.

But it's on a lot of at least longevity and lifestyle related weight related. That would be unproven here today. Like our mission is. Yes, keep bringing more science.

But how could we increase the first? How could we indicate to people about this the awareness of it? Yeah, you're one of those angels of your who trusted.

The best way to engage is to have key opinion leaders such as yourself, people you know, with trust. You know, two practitioners that people listen to.

You know, I can I mean, so happy and just listening to you, you. I've never met you before. This this is a disclaimer and and and and I'm like, so happy listening to how you, you're bragging about what it's doing to your patients, that this is the best thing you can, you can do for us and for the history of medicine.

By the way, Professor Longo founded this company, donates all his years to foundations. So allow I'm going to brag and talk forcefully, because this is a double social impact.

Companies changing people's lives. And a lot of the money goes back to to further research and to helping the poor to access this. So I think today's education for us, which you and I just explained and unfortunately, is that an elevator pitch I couldn't explain problem in the last segment.

You can buy it in like two seconds or one sentence. But it takes a discussion like the one we had today. So I want to invite, you know, almost everyone listening to us today, unless you have like a serious condition, talk to your doctor first or it's unsafe for you to, you know, the same in between died.

But otherwise it's five days. Do it three times per year. We have a study show. We did the university by eight, score by 2.5 years the first year. And then if you do it consistently every year, three times per year for 20 years, you're reversing your bio age by 11.5 years.

And if you have a health conditions under the supervision of a doctor such as Doctor Jason, you can do the 4 to 6 cycles to try to increase your chances for regression or remission from that health condition.

But again, it's five days every cycle. At least try it today. If you haven't tried proven, try one cycle. It's experienced so that you get a feel for it.

And big changes in your weight, your energy, your mental. You know, it's one of the best feelings, and, and a sense of achievement. And then you're going to get hooked on it and try to change your life.

And hopefully you lifespan with it. Yeah. I couldn't agree more. So, I mean, people can probably just go, do an internet search to find this, but tell people where they can actually go if they want to want to give this a shot.

Where where can they order something like this? The official website for Pro is called Problem lives.com. And you would go there is you know you want to do pro line for again longevity or weight related or cholesterol triglyceride etc..

But if you have a condition and especially if it's diabetes, we have a special website called Neutral Health. This is our health arm editor health.com.

And this is where you can go and have a supervised experience. You would do the fasting and you can buy it, but you would do it with the dietitian and diabetes and longevity like this or some other side.

And if you're a patient of Doctor Jason that he can supervise you. And if you don't have a specialist diabetes specialist, we also have some that we can refer.

And to help you hopefully start knocking off your medication and be free of diabetes at a certain point. Beautiful. Doctor Anthony, this has been fantastic.

I know you're traveling. You know, it's I think it's late where you're at. So. So thank you so much for taking the time to do this today. And joining me. Thank you. Jason.