Introduction and Bio

Welcome to another interview for the MS and Neuroimmune Summit I'm here with my friend and colleague, Joseph Antoun. now, Joseph is a MD, PhD, and he completed his medical school.

he has a PhD. he is been the, director for the Center for Health Policy at the University of Chicago and adjunct professor of health policy at the Buck Institute for the Research on Aging.

And he has been, a coeditor in chief of the Journal of Health Systems and Reform. He served as the chairman of the board, the Global Healthspan Policy Institute, and us to do with aging.

and he's, really dedicated his experience to understanding how nutrition and aging intersect. and, with that, Joseph, I'm going to ask you to add to the additional parts of the bio, because you have such a long and robust bio.

I don't want to take our whole interview reading your bio. Well thank you Dr. Terry. I'll I'll summarize it in a few lines. I, I always wanted to be a physician and to help patients, and this is what I did.

I did my MD, PhD, and and then I figured out that we were practicing mainly a little bit of a secure system so that the biggest for diseases killing us today, whether it's cancer, diabetes, cardiovascular, Alzheimer's.

We literally don't have the full solution yet to meet people before that heart attack, before the Alzheimer's. It does help them prevent that and keep them healthier, longer.

We were a little bit into the secure system where we're giving a lot of medicine to people for them to take it for the rest of their lives, with no endpoint.

And I used to tease my, I did some of my rotations and measure all the time, but I use it as the attending and say, hey, we're writing those prescriptions.

Food as Medicine and Chronic Disease Prevention

When is the end date? Like, if they work, why? They'd have to resolve them every month. So I started then saying, well, maybe, maybe there's a better way.

Maybe there's a different way. So I left and I went into Health Policy and Public Health. I did my master's at Harvard, at Hopkins and, and started that career into how can we present as much as possible?

Things are not not everything is preventable. Not everything is curable. But how can we increase the chances of both? And the long story short, and I spent time with the BioTech at Lilly as well.

now is the number one pharma in the world. and so this is what I learned. The business US discovery, US new drugs and new interventions. And I took all this medical knowledge and and and I had two moments in my life is that food is the only product that we consume every day of our lives.

Five, 3 to 5 times per day. So it's either the biggest medicine or the biggest poison, depending on what we do with it. And I was like, okay, if we can shape foods for longevity or food as medicine, that probably could be the biggest footprint I could have on humanity and people.

Let me bring evidence based medicine, my BioTech work, my medical history to nutrition because this is what we lack. Nutrition is the biggest market. Trillions of dollars.

Yet nobody wants to put through dollars into preclinical and clinical trials to bring nutritional formulations that can solve diseases or prevent diseases.

They all want to explore our palates. Still want to see the stuff that tastes good. So they they play on 1 or 2 ingredients to make them sexy outside on the on the thing for us to grab them.

And then we ended. We're ending up spending trillions and trillions of dollars in health care and still diabetes on the rise. autoimmune diseases, including MS.

on the rise, Alzheimer's on the rise. Very fast on the rise. So we have to do things different and I decided to take, all my career into food as medicine.

You know? And, what I want all of us to think about is the food industry is hiding, is hiring the food scientist to create products to make their product more attractive, hyper palatable.

So we will over consume. And that is part of the, big problem. and, again, for everyone who's listening, some, points that I really want to drive home, we know that if you have these co-morbid problems, high blood pressure, high cholesterol, obesity, insulin resistance, pre-diabetes, metabolic syndrome that you have a shorter time towards job loss, a shorter time towards, disability, shorter time towards needing assisted living, or nursing home care.

and so in those all those factors are deeply connected to the foods that we're eating and they're deeply connected to, ultra processed food. So, foods high in added sugar, high in, white flour based cereals, breads, pastas, treats, desserts.

and that increases the risk of developing multiple sclerosis and all these comorbid problems. So with that, why don't we talk a little bit about, what you've been discovering in terms of nutrition in aging and these comorbid problems that I just rattled off? Yes.

So, you know, one event that and to bridge the story to, to literally two discoveries is when, when, when meeting changed my life, basically where I was talking with the top aging researcher and he told me that, you know, if you keep the body young from the inside, this is the biggest gift you can give to somebody to live a healthier, longer life.

And if you think about it, 90% of us will die. Out of the four diseases I mentioned diabetes, cancer, Alzheimer's and cardiovascular diseases. And guess what?

You're not going to have a heart attack at age 20. You're not going to have Alzheimer's even if you have the gene at age 22. So you only get them at a later stage in life.

And therefore it's all about when your body metabolism and cells that's important metabolism. And so as they get older, this is where you become prone to multiple health conditions because the the doctor from inside the healing powers from the inside the cellular, the cells healing themselves is actually and curing and supporting and rejuvenating.

decreases with age. And I always use the example as if by accident, you're in the kitchen, you touch your skin, you know, as you're aged 16, it will heal very fast if first of all, it will heal.

We don't need pills.

Fasting, Cellular Rejuvenation, and the Fasting Mimicking Diet

We don't need. We just need a Band-Aid. Take the trauma. Soap and water and a Band-Aid. Yeah. Take the trauma. Don't. Because this is what we don't do here.

I have high blood sugar. I keep eating sugar. I keep bringing in trauma. Right. So at age 16, heals fast. At age 32, is a little bit slower. At age 50, it's slower.

And at age 80, 85 it heals much slower. So first of all, the cells know how to rejuvenate. That's important, but they decrease the healing impact with time.

So let's apply this to the next question is how can we keep the body younger from the inside. And this is where my second biggest moment in life happened is they told me that fasting is the only intervention proven to rejuvenate the cells.

And there's this company called L-Nutra, which now I'm, I'm the CEO and the chairman of that started at the University of Southern California. So this is one of the rare food companies the company studied at USC.

And now there's 18 other universities that joined the research. You have Stanford, you have Mayo Clinic, University of Miami, laid in 18 big 18 universities.

They come all together and they're studying this new nutritional formulation called the fasting mimicking diet. It's a five day nutrition formulation that you eat it that gives you the benefits of fasting and why it was important to mimic fasting, because going back to rejuvenating or resetting your metabolism is what happened with fasting and rejuvenating yourselves.

This is what happens with fasting between the three and five. This is why it's a food to mimic fast. Because people cannot fast on water for three, 4 or 5 days.

And it has been scientifically proven that you have to go at least two days of fasting between 2 and 5 days to rejuvenate the cells. So you need those five days.

They developed a suit that gives you the benefits of fasting over five days. And now they made fasting safe and compliant. And people can do a five day fasting with food to both rejuvenate the cells and metabolism.

And together they make your body younger. And again, when you're younger, from the inside, your cells are biologically younger. You are better. You deal better with any chronic condition.

You did better with cholesterol and you're better with triglyceride. You do better with blood pressure. You do better with blood sugar. All these components are so critical.

And it starts from the gut, by the way, the leaky gut, which is behind a lot of the chronic things, the syndromes that we're seeing today. And once your body is better doing better multi systemically dealing with these comorbidities, the body's in a better shape to heal itself, to correct the cells and to deal with multi multi chronic diseases.

So let's take a moment. so fasting super helpful. It resets a lot of our metabolic processes. and you'll actually for years I did a five day water fast because I wanted to, you know be young forever.

and and then what's the problem with water fasting and then, to, talk about, my problem with water fasting, but. Well, the big problem with water fasting, I mean, if you do water fasting for 12 hours the overnight, that's that's easy.

And that you should do meeting just overnight because it's getting fasting when you do five days of water fast. I'll give you an example to help anyone listening to us today, you know, grasp it very easily.

Imagine you're the head of a company, say, the hospital. You're the head of the hospital and you need $1 million to operate the hospital says, which means that's your buddy and you need $1 million in calories.

Okay. If I come in and give you $0, right? Yes. There's a pressure for you now to run and restructure the hospital and improve it and get certain budget.

These are the positive side salad rejuvenation and metabolic reset. So you'll cut some of the travel budget. You'll work on enhancing performance, productivity.

All this is positive. At the same time you have $0 to fund any of the change. Your best employees or best doctors will leave the hospital because you can then you can not pay for even utilities and sustain your year, and you cannot even invest in anything for the future.

So. So fasting is such a deep, powerful intervention. It works exactly when a company is in crisis. The CEO and the management team restructure the company in a positive way.

At the same time, they have literally zero money. It's very hurtful. We saw that even in mice when we did clinical trial in mice, when we did the fasting and water versus the fasting with food.

And this is like giving coming to that hospital and saying, you know what, you need a million. I'll give you $500,000, go and fund the restructuring. So we saw that in mice and the GI tract and the gastrointestinal tract, there was no new cell stem cell production when there was a lot of fast or very low.

When you do the fasting, mimicking diet, we see new cells rejuvenating and flourishing in the gut. So there's a big difference. When we first discovered the fasting mimicking, they were trying to get the benefits almost equal to water.

And then suddenly we saw many times actually it's safer, more feasible. They're better benefits because you're funding the correction. You're giving minerals, vitamins, proteins, cards to the control space.

But at least you're funding that rejuvenation. You know, and when I compare my own personal experience doing the water fasting, it's certainly very hard.

and you're very, very, very hungry. By the fifth day, in my family would say very, very irritable. by the fifth day, and then, of course, now I'm also painfully aware that I lost a lot of muscle because my body would still have to do some of the chemistry of everyday life.

And if I'm not feeding it, it's going to have to use my body, including so fats. Okay, but my muscle is really hard to build and, so, so then when I discovered the fasting making diet and I switched, flipped over to doing that first, it was way, way, way easier than a water fast.

and, you know, I think I had, better health outcomes, better impact on my physiology. I miss bringing up the muscle. And you're bringing a very critical point.

Is not the fasting. Mimicking diet has two clinical trials showing protection of muscle. And there's a third one that we just finished showing an increase in lean body mass.

Right. So what happens when you fast. Remember, for everyone listening to us here, fasting is not a calorie that when you do the five day it's not just a calorie.

This is it's the stress of rejuvenation. So the muscle is ready to rejuvenate and water fast. There's no protein, there's no nutrients or the muscle to rejuvenate.

And because fasting is a stress on the body growth hormone, it's a it's a stress hormone increases. So actually the body is telling the muscle to grow.

And that's a natural phenomenon when there's no food. Imagine our ancestors 10,000 years ago. If there's no food, the brain wants to stimulate the muscle to go and find the next tree or the next river, etc.

to find food. Now with water fasting, there's nothing to eat. And but with the classic American diet, it simulates what true fasting was. You know, most of the time in the winter is they save a little bit of food to eat, look, but even the religious fasting, there's a little bit of food involved after a certain period.

So that nourishment that comes to the muscle, that is rejuvenating with autophagy, that's, the rejuvenation that we

talked about, this being pushed by growth hormone assessment to grow.

Now you give it the protein and the fast mimicking that has land based proteins which are very healthy. One that the spike IGF and not to push. We're going to talk about that not to stimulate.

So let's explain IGF our listeners may not know that term. So IGF is an insulin like growth factor. And so the body when you eat carbs insulin increase when you eat protein, insulin like growth factor another growth factor increase.

And these are two growth factors that are very important to control. So that you don't age fast.

Muscle Preservation, IGF, and Metabolic Health

And a lot of chronic diseases get stimulated by these two factors like cancer for example. There's insulin and IGF because it nourishes cells that are hyper excited like an autoimmune conditions that are just if you need to feed them and you give them a higher insulin IGF, you're just telling them, keep going right.

So it's very important that you control the spikes of IGF said insulin. And that's exactly what the fast mimicking light is doing is giving you the Irishman, without spiking big time.

The, the the the pro aging and the pro growth factors. So the muscle gets maintained, which is an ideal situation. You're only losing fat in your preserving lean body mass.

That doesn't happen with chronic diets. That also doesn't happen with the GFP ones. You know people are ozempic today and we go we we know the 25 to 30% of their, weight loss is actually fat plus muscle, 25 to 30% is muscle.

And this is the problem with creating an addiction, because once you stop them, you pick up your metabolic rate is so low because you lost so much muscle.

You pick up super fast, you go back and insulin resistance and you go back into high blood pressure, glucose pretty fast. So the fasting to minimize that in between solutions like this only protects your muscle, doesn't decrease metabolic rate.

And therefore you see those, cardiovascular health, you know, maintenance. And maybe we should explain the metabolic rate, to help people understand, that term. Yeah.

So the muscle is the engine of burning carbs and and many other related factors. But the muscle is so important to be protected, especially with age, because it burns carbs.

And once you slow down the muscle mass, you decrease the muscle mass your metabolism slows down when metabolism slow down. And this happens naturally with aging, by the way, and this is why you want to keep you younger with the fasting and making that, the more do you lose muscle in age, the more or with the JLP ones when they will go visit the Olympics or with chronic restriction.

When you lose the muscle, your metabolic rate slows down. So whenever you eat, you're not burning the calves that you're eating fast enough and therefore they get sucked into fat and therefore you become more insulin resistant and you develop cardiovascular issues.

It just keeps getting worse and worse. You know, the GOP ones, I'm like, I cringe every time I see those ads. Like, you know, there there are better ways of managing, obesity.

It's, you know, with, with medication, it's always the, and it was the thing, right, for 4 or 5, six years and medication are, are always is always the balance of is there's no one medication is fully safe if you cannot come and work on one receptor blocked or stimulated and expect everything to be positive, trade positive or negative.

This is why we like nutrition is fasting because that's natural. That's that's how the body was. This was was built and the genetics and the epigenetics were built to react normally and naturally when our ancestors fasted, actually, we had fasting and fasting and and feeding periods.

They were part of the daily process. They were part of the seasons. We lost those today. Today we live in a fad. People ask me, hey, is this new fasting?

Is that it's like, no, we live in aside where do we click on the bottom? And a guy rings the door and gets you an Uber delivery? this. Is. this fasting is bringing back nature to our lifestyle, bringing back true balance to life and through correction to our body.

I was compared to when you have a car race doing the five day fast, maybe, you know, it's taking a pitstop. The engineers come in, they put the system in check.

They change whatever is needed to change, and the car goes back to stay healthy and longer and faster on track. And this is where hills can never achieve without side effects.

And that's the problem. So whenever you have cancer, you say, okay, I'll take chemo. There's a lot of side effects, but I need that, otherwise I'm going to die.

The problem is, when you start going into just simple intervention like obesity, is it worth injecting a biologic into your body once a week just to lose that weight?

Or should you try something else that is more natural, more efficacious? Do you want to get the side effects of cancers that are now, if you're very obese, you're getting pre-diabetes and you cannot resist food?

Yes. Why not? This is where the balance tips into let's try the medicine. But if you can still control your feelings and pattern, and you can work on your stress and your sleep and your exercise and or can do the fasting mimicking diet.

We love the fasting and begin by the natural God. The product is called prolonged because it's short enough for people to complete five days only for months, but it's long enough to change your pattern.

It's long enough to change your relationship with food and could be a very good solution for weight. And then so you. The other thing I like about prolong and that my patients have like this.

So you get the box and you get a within the box. a box for day one through another one for day to day three, day for day five. And then you go just make the decision like, okay, I'm going to eat what's in the day want box.

And that's all I'm going to eat. So, and I'm not having to make other decisions about cutting calories. I'm just going to limit I'll just eat what is in a one box.

So I think it makes it easier to follow. so I, I've done my five days, and now I get to go back to. To what? So my, Day six. What then what happens if we.

The answer is it depends on your health goal. If you're if your objective to live a healthy, long life, primarily, then when we advise our founder, Professor Valter Longo, you know, within his book called The Longevity Diet, I really recommend people go and buy this book. The Longevity Diet.

He discusses what you should eat, eat healthily. so we looked at we study centenarians, people living 100 and beyond globally. Many centenarians. We studied longevity zones.

We do clinical trials, pre-clinical trials to prove what humans fit into healthy long life. And there's a full description of what the night is, the longevity light if you come to the Prolong life.com website.

Now, besides the five day fasting mimicking that was started selling the longevity diet.

Longevity Diet Products and Practical Nutrition Choices

We have the the the longevity protein. we have the longevity pill, we have the longevity spread. So we're trying to replace people's nutrition, with the healthy formulation for longevity.

And the common denominator is food that doesn't spike your blood sugar so that you don't spike insulin so that, you know, faster, you don't age faster and develop cardiovascular disease.

And so that doesn't over spike IGF so that you're not pushing your body to age and you're not increasing risk of cancer. By the way hi proteins. This is big news here. It's not news to us.

But the business industry has made sugar as a level and protein as their friend. But the high protein levels are actually accelerate aging fast and over nourish over some cells.

Right. Even if you have an autoimmune disease, if you keep going on high protein and high carb in a push, the to to, that's a very important point. And so so with a committed to the longevity diet, read about in the book or see it on our website Pro life.com.

Now if you say no, my goal is to go on. and I want to build muscle, I want to go on a high protein diet or I want to go, we're going to go on a vegan, mainly biscuit slash pescatarian diet there as well.

If you want to continue with a certain type of fasting, you can do the intermittent fasting and continue with that and alternate intermittent fasting with protein or longevity night.

So the answer is it depends. And if you have a health condition then you know what is your health condition. And there's we tend to add nutrition in our programs.

in our neutral health programs we tend to nutrition for the health conditions it provides by a dietician. So so depends on the health goal. So it depends on the health goal.

And it probably depends on what you, and your family are doing. And you know, I spend a fair amount of time, talking to my patients that were, if you decide what you're going to do as a family, you'll be much more successful.

and if you decide that I'm going to eat, whichever way it is, whether it's Mediterranean or paleo or intermittent fasting as a family. we can do that.

if we decide that everyone else the fam is going to keep doing the standard American diet, a lot of ultra processed foods, and I'm going to make a diet change, whatever that is.

it will be a struggle, to sustain that diet change while I'm watching my everyone else in my household eat the food that I was used to eating, that I probably crave, that I'm, probably, struggling, to avoid.

Dr. Terry I agree with you, but we tried that humanity tried to change people's habits for for decades now. And it's very difficult. Right. And you're right.

You're making it easier by saying, hey, if the entire family jumps with you on that ride, it will be actually easier for you to do. And I agree with that.

But it's difficult to to. This is why most bites fail. They fail because they want to change our behavior. Right? And this is why we like what we're doing, which is okay, give me five days a month.

You do the ProLon five days only because it will inspire you to change your life. The more you do with what's happening, it will inspire to change your life.

And what we try to do as well is in the in the other products that we have is how can I replace your dessert with the longevity script? We have a protocol, how can I?

I don't want to tell you don't even dessert because most people will end up needing to listen to you. And after three weeks after they leave your clinic, they're going to go back and real estate and eat the dessert.

Like, this is what's going to happen. And you know why? Because nutrition companies wanted to sell cheap dessert, which is high carb. This is the cheapest thing you can put their high preservatives and they just want to explore you.

What I discovered coming here, I came, I came to this company from medicine and I didn't know anything about nutrition. But what I discovered is the most tasty dessert you can do are actually super healthy.

Because guess what the tongue likes more than the car in the car, it's the fat. And guess what? The healthy fat is coming from almonds and the academia is actually they don't use it in the food business because it's expensive.

But when you add that side to a little bit of cocoa, it tastes much more than is good. Any, any the, and this is the basis of the brand, the longevity spread that we have.

So it tastes much better than any Tesla. And it's 74% almonds with a little bit of the cow and a tiny two grams of sugar. That's it. And it's. Actually as, as as, you know, and there there are studies showing that if you consume six days out of seven nuts, such as almonds and or, or macadamia, etc., they actually decrease cardiovascular death by 20%.

Six days and. Marvelous, marvelous. We a dessert now called the longevity spent exactly give you that better days and have you live longer. So what I'm trying to say is the biggest thing we want to change is the is the pure business profit nutrition companies, because we can develop a lot of healthy products that can still make it so give you the great taste that you want and can you can adhere to them rather than see limited diet.

And if I'm going to sell in two weeks and therefore it's learned helplessness, then anxiety and depression, and this is what we see in the market. People are just feeling the helplessness and they become, you know, depressed and lonely and feeling that they stuck with their disease and their body.

And we're trying to unlock that by very effective but short term interventions. Okay. Well, this was amazing. and, I think we should tell people, where to find you, and, ProLon.

So if you want to read more about ProLon, go to prolonlife.com and there's a, there's a science section. I really recommend people read the science. We put all our articles.

We're one of the few companies that have over 30 clinical trials on the products that we sell, so we'd like to develop them as medicine. I mentioned these words food as medicine in Switzerland, Germany, they're all done.

I believe you big universities read the science and they will help you understand what the products are. My recommendation is to try the ProLon five days.

If you don't have any exclusion criterias, it's fine. There's only a month. A lot of the science that we studied is to do three times per year. And in between you can consume the other products that are all designed with a longevity formulation super clean ingredients, expensive premium ingredients.

We don't believe into giving you cheap stuff. We eat it, our families eat it, our kids eat it, and we're creating this movement of longevity and trust in nutrition and investment into your health within with those products.

One more time, the website is. prolonlife.com. thank you so much. it's been a real pleasure. Thank you Dr. Terry.