Introduction and guest background

– Welcome to another episode of reversing inflammation. Summit body and mind longevity medicine. I'm your co host Dr. Stephen Sideroff and I want to first welcome my co host Rob. Dr. Rob Lufkin.

– [r] Hey Steve, it's great to be here. I'm so excited about today's session. This is this is this is gonna be very interesting. – [s] Yes, yes. So in this session we will be meeting with Dr.

Kamyar Hedayat. Kamyar is a practice is a unique form of integrative medicine called Endo by a genie. He studied at Stanford for two years in pediatric intensive care and then did a particular follow up in Endo by a genie in France and is now one of the leading practitioners and researchers in the field. So we're very pleased to happen with us today.

Welcome Dr. Hedayat I am so pleased to have you joining us in this in this interview. We've known each other actually for a few years and I have discussed collaborating on some research.

So it's wonderful to have this opportunity to to meet with you. – I'm glad to be with you today too Stephen. -[s] and our co host Dr. Rob Lufkin. – [r] Yeah, it's good to be here. I can't wait.

-[s] So let's let's kick off our conversation Kamyar by just kind of give us a little sense of how you got interested in the areas of aging and longevity.

– I became interested in aging and longevity from my original training which was in intensive care medicine. So really being on the cutting edge of life and death and asking myself why do some people uh become so sick while others don't and then how did people recover from illness was the beginning of my work. And then uh I came across the work of Dr.

Perricone, the dermatologist. And uh that was the first time I started to think about longevity and aesthetics in terms of skin aging and thinking about how hormones and uh food choices affect the quality of our skin.

And then from there I kept going deeper and deeper into how the body manages stress, how the mind manages stress. What is the link between those two and then what is the role of genetics.

– [r] No, I can't can't wait to get into all those things.

Aging, longevity, and the mind-body-lifestyle model

But before we, before we dive into each of those points, um I love asking our experts just to set the stage on how, how they think about longevity and aging. In other words, the sort of the 50,000 ft view, why why why do we age?

Why do we grow old? What determines longevity? What what is your kind of working model for that? – Well, my working model is a is a three part model which uh and I think that there is an equal interplay. The first is mind.

The second is body and the third is lifestyle choices. The mind would be your attitude in life, how resilient you are as Stephen talks about in his work, how um accommodating and forgiving how loving you are.

There's a lot of research about the positive benefits of gratitude for example. But I know from my work and my training that our mental attitude and our mental perceptions have a direct effect on how our body expresses a physical stress response and that physical stress response can bring wear and tear to the body.

So the mental to me is really the starting point in terms of the role of the physical body. We have to start with uh

genetics but overlaid is epigenetics which would be the influence of different factors which can turn certain genes on or off.

So we know from really good research that trauma physiology trauma stress patterns can be inherited across generations by this technique. This process called epigenetic modification. So it's how your genes are modified in a way that you wouldn't have anticipated them being.

So we have genetics and epigenetic six which set the stage about how your body functions and then we have your mother's diet while she's pregnant with you.

And then we have the early dietary choices if you were breast fed or bottle fed, how much refined food you ate and then the choices we make as we grow old and we're independent eaters.

And then in lifestyle to me is really a combination of factors that are influenced by our mental attitude and our physical health. It's about the rhythm of our daily life.

Do we overwork? Are we under working? Do we take time to rest? Do we take time to celebrate? Do we exercise and we want to do something fun? Do we uh sit down and eat a bag of chips?

Do we meditate? Do we believe in a higher power? So lifestyle factors are the great mitigator because we can't change our genetics, we can't change our epigenetics and changing mental attitudes is something that's totally doable. And again, I know that that's been Stephen's great work and he has done incredible work in showing people how to how to do that and become more resilient, but it's not easy work.

So when lifestyle is important, because those are changes that people can make immediately and in a short period of time, see some improvements in terms of why we age.

So to answer the question, why do we age, I would say the more imbalanced, these three big factors are uh mind, body and lifestyle choices, the more wear and tear we put on the system, the more we accumulate things that shouldn't be there, the more we lose things that should be there that keep us healthy.

– [r] Yeah, I love that. I love that approach. With the mind body, certainly that resonates with what we're hoping to do with this longevity summit. Um, and then the lifestyle factor you brought in was great. And if I if I understood you correctly, what you're saying is that genetics play a role, but but beyond beyond genetics, the epigenetics and all the lifestyle factors.

Those are in our control and um that we we can by taking the appropriate steps influence those factors and and change change our longevity and and change how as we age if we choose to. And if we're successful, – I would agree with that. I mean if you look at the work of Bruce Lipton and others around the biology of belief, if you look at studies where they've shown that people who start meditating in just two or three months, they change the length of their telomeres which are the end caps on your D. N. A.

Which seem to be a good indicator of longevity and biological age as opposed to your chronological age or your age on your on the calendar. So absolutely. The good the I mean the bad news is you can't change your genetics but the good news is you can change your epigenetic and the epigenetics is the is the ultimate determination of a sort of program of how your body is running. – [s] Can you explain uh endo by a genie to our audience? – Yeah. Antibiotic ginny is an approach to medicine which expands the boundaries of what we're practicing today into something much more holistic uh progeny is about looking at the body uh like an ecosystem, like a fine web of relationships between your hormones, your nervous system, your brain and your psychology, your detox organs, everything is interconnected, everything affects each other and end of a genie creates the pattern and the paradigm to understand how all these things are connected.

When we understand that we can work on the field of your health, which we call the terrain.

What endobiogeny is and how it differs from other approaches

And when we can work on the field of your health, we can get you back to the potential for longevity and health that you were meant to have based on your genetics and epigenetic or as close to that as we can. – [r] I love I love the idea of the endobiogeny and and the terrain model and especially as a as a physician coming from and still at the sort of the the Orthodox academic medicine.

Um how does endobiogeny any compare to other other schools? Like like functional medicine or Integrative medicine? Which how do you, how do you compare those two?

Or are they all pretty much doing the same thing as far as approaching the terrain and and sort of root causes, which I think is a really powerful concept that that they're all three getting at somehow. – Yeah. You know, I want to say that everyone working in this field is doing amazing work. My explanation of the difference is not to say that one is better or worse, but just to kind of say, well, what exactly is the difference?

I would say that uh functional medicine is an approach to the terrain, where the field of health is really still based at the level of cells and tissues.

And uh in contrast and progeny is looking at all the different levels. It's what we call uh fractal model or holographic model, kind of like Matryoshka dolls, those Russian dolls where one is inside the other.

So we're looking at the whole body as a field and inside the field of the body are all the organs inside the organs, are the tissues, inside the tissues or the cells and inside the cells of the genetics. And we say, why stop at one level of analysis when you can run through all of them and get the biggest picture possible.

Integrative And then, pardon me, then integrative medicine is a field which is an approach, which I would say is more like a salad than a soup because integrative medicine is a movement which seeks to place uh a standard Orthodox approach next to non orthodox approaches and say, hey, we're still in charge because we've got the reimbursement model and we're the authority figures. But if we can't figure it out, we're going to toss you a bone and let's see what you can do.

So I would say Integrative medicine is saying, okay, there's a big tent and there's a place for people who aren't doing surgery and prescribing medications, but you're always second and oh, by a genie instead of being integrative is integrating and integrating means bringing everything in and making these connections, you know, as an endo biology, honest.

I don't give any privileged priority to any approach. I always tell my students that I train and I always tell my patients everything's on the table, everything's on the table, surgery, chemotherapy, medication, herbs, meditation, homeopathy, acupuncture. The only question is what's the best thing for you right now to maximize your healing and come to a new state of stability?

– [r] Yeah, I love the idea of the endobiogeny. And just one follow up on that Steve mentioned you and you you had training in France for that and you mentioned that you trained healthcare workers here in the US and that. Is there any sort of certification program or credentials when someone looks for an end of biogenic oriented healthcare provider, uh what should they look for?

– Yeah, I've been teaching endobiogeny around the world in north America and Europe and North Africa uh since 2012. And uh right now we're getting ready to start a new program that will be easier for doctors to learn and they can go to our website, learn endobiogeny.com and they can learn more there.

I've also published a four volume book series that anyone can purchase on amazon or at the website of l severe, who's the publisher of that? It's also available in French for any of your French speaking audience members, they can go to french amazon.fr and look and just type the word endobiogeny and they'll see our books there too. So that's a great way to learn.

And then my mentor in endobiogeny, Dr. Lapraz, L A P R A Z, wrote a fantastic book with a journalist for the general public and you can get that in English at amazon if you type process L A P R A Z or at French amazon as

well.

– [r] Just before we move on from that, this is such an important topic. I wanted to just reach back and ask you to expand a little bit about the role that, that you so beautifully explained about resilience and the mind and how how that plays in the model. – Oh yeah, sure.

Well, you know, within the brain, so I want to make a difference between the brain as a physical organ and the mind. Uh the mind to me is a type of event.

It's a conscious, it's consciousness, it's awareness plus the role of the physical brain and the nerves in the brain, the neurons to express these electrical impulses that allow us to think in the physical world.

But the brain has a special area called the limbic area and this area called the limbic area is like a grand central station where nerves from the brain, nerves, from the fight or flight nervous system and input from the hormones all meet And they kind of get together and they say, hey, what are you doing?

Are you stressed out? Are you worried? And any one of these three systems, Your mental attitude and perception towards stress, your nervous system's tension and your hormones can tell the other ones.

I'm feeling really jacked up. I'm really feeling worried. And the other systems will say, okay, I'm going to get worried too. And we're going to work together to create a big stress response.

And so the mind is important in and of itself because it's, it's really the entryway into the whole stress hormone response and aging. Because in the world model world we live in, we're not constantly faced with threats of survival unless there's war or people are living in the jungle in very um primitive or basic conditions.

So most of us who are living in cities living in suburbs. Our problem is not uh, existential survival. Most of our problems are coming from our perception of the world around us.

You know, somebody talked bad about me at the parent teacher association. You know, the AARP changed their policy and it's really making me mad. There's all sorts of things. A driver cut me off.

Most of our stressors are unnecessary stressors.

Resilience, stress, and early imbalance detection

I estimate just from my clinical experience, probably 60 to 80% of the physical stress responses coming from mental issues that didn't need to be an issue. And so to me, the mental part is really important. And when I started when I left intensive care medicine to practice and our progeny full time in the clinic, I was really focused on the physical aspects of health, but I realized after a couple of years that there were patients who just hit a plateau and I couldn't get them physically any better. And then I started to ask about their traumas, about uh early childhood trauma is what we call adverse childhood events and adult traumas.

And I understood that the bigger the trauma was, the bigger the barrier to getting to that full healing potential and having optimal longevity. And then I started working in the field of uh what we can call psycho dynamics, helping people understand different parts of their minds that are creating those attitudes and how they can evolve out of that to have more resilience. And that was a real game changer in me, helping people age better and maintain their best potential to live a full life as they get older. – [s] I really appreciate that response and I couldn't have said it any better than you, where you're really talking about mindset, how we frame things, perspective and things of that nature and and their impact.

So I appreciate that response. – Sorry, Stephen, can I just say, I couldn't say it any better than you because your book was uh the on the ninefold path and resilience was so impactful and so well written and it's a book that I referred so many patients to uh because it is so well written and it is such a great pathway to developing this mental flexibility to deal with stress better in life. Thank you.

I appreciate that. – [s] One of the things in our conversations you talked about about endobiogeny is how it can detect imbalances way earlier than other approaches. And this gives you a leg up on on how to deal with it. Can you go into that please?

– So uh from our work in India by a genie, we developed a special uh analytical software that takes blood work, Common blood work that doctors order all the time, like a simple blood count or electrolyte panel. But then also some specialty labs and the software is able to detect imbalances between the different blood tests. And that helps us create a model of where people are at in the global functioning of their whole body, their whole terrain.

And so in this way there are certain disorders that um take years or decades before you actually feel it or see it. Most of us are familiar with the concept of prediabetes or uh pre hypertension, where our blood pressure is in the upper range of normal. It's not quite high enough to start a medication, but we see what's coming down the road and the same thing with diabetes.

Well what we found in our work over the last 50 years is that there are all sorts of other pre disease states. And if you understand the genetics, the family history, how the detox organs are functioning and the mental attitude.

You take all that information. And then you look at the analysis through our software program. You can start to see uh pre pre disease states, pre cancer, pre aging. Pre Alzheimer's, if we know somebody has a disorder but it's currently controlled, we can, we can say, you know what I see something that looks like. You might have a flare up in the next three months. And when I talk to folks on the next follow up consultation, they're like doc, you said it and and and it happened, you know? And so for me preventing.

Well, I mean just like I think Benjamin Franklin said that an ounce of prevention is worth more than a pound of cure. So it's always better to prevent than to have to get behind the eight ball and try to cure something later on.

And that's what I love with endobiogeny and using our testing system called gemma. – [r] I love, I love the idea of doing the test for the uh early detection or pre clinical detection of, of these these important chronic diseases.

I I'd be curious um, maybe you could talk a little more about gemma be interested in hearing that. And also is there, are there different markers that uh, indicate aging in itself or basically do the same markers that indicate risk for cancer indicate aging and risk for Alzheimer's disease indicate aging because they're they're so closely intertwined.

– Yeah, Rob you ask. Really a great question. Gemma which stands for global uh endo progeny Medical mathematical assessment is founded Gemma bio GEMMABIO.com.

It's a website uh that doctors can use, they can register for free and enter the labs of their patients and and benefit from the power of this analytical system.

And so the the uh the the concept of aging is really about degeneration and we have this concept in endo progeny uh that we borrow from a french term which is the installation which is when the body starts to basically want to close up shop. So there are things that we notice say a decade before people start to kind of feel old, so to speak.

And uh I've developed formulas for the system that can show a general risk of um aging and degeneration when the body is not using something called a tautology.

Aw to Fiji is the system for the listeners where your cells basically have a natural garbage disposal system. They'll take waste products and toxins and they'll they'll destroy them inside the cell.

And there was a Nobel prize that was awarded for the a couple of years ago for the doctors who and the researchers who just discovered A to Fiji but we can look at this, we can model and estimate autopsy gee and where people are getting stuck and that's the first sign of degeneration and aging?

And then I notice other things in our gemma system, like all of a sudden uh, red blood cells and white blood cell levels will go down and people don't have enough testosterone for vigor and vitality. Uh, and then we'll start to see

their metabolism go low and then their pancreas isn't working well to break down food.

Autophagy, biomarkers, and personalized interventions

That's why people find themselves eating more soup and, you know, boiled food and steamed fish and lighter and lighter food because they're having trouble digesting. These are all parts of this diy installation where the body is like, well, I'm getting ready to close up shop and we can reverse it.

Uh, as long as we come in soon enough and bring back that vigor and vitality. – [r] I love the gemma test that such a fascinating approach to it where it's all integrated and hopefully people will check out that website.

One question, I guess autophagy, all of all of our experts, everybody pretty much agrees that the fundamental role of the autophagy is one of the key things with aging and I guess the challenge that everybody faces is that it's, it's so hard to, to measure autophagy by itself. What what lab values do you find most important for autophagy or what, how do you rely, what do you rely on to characterize it? – The formula developed is a very complex in the sense that there's like five or six other formulas in the numerator on top and then there's a whole bunch of other formulas in the denominator on the bottom.

But basically if you wanted to look at the raw lab data, thyroid stimulating hormone very important, irrespective of whatever your level of thyroid functioning is uh osteo calcium which is a bone protein which actually has a bigger role in helping your cells outside of the bones maintain their metabolism.

Because osteo calcium increases the number of mitochondria for energy production. It improves insulin sensitivity and improves estrogen's role in transcribing the genetics around protein metabolism and building enzymes to help yourselves function better.

So osteo calcium is very important. The third one I would say, which is very important is alkaline phosphate bonus. So enzyme so I never getting kind of wonky with the details.

But these are important. And uh but actually I don't measure autopsy because it's really not practical. But we model or estimate it and I actually estimated in six different ways three ways are what what's going on at the level of the cell and then the next three are how is the whole body's stress response, making it harder for cells to use autopsy gee and based on which ones of these which level of analysis the problems that we can use different types of approaches.

Maybe it's tweaking thyroid stimulating hormone by starting someone on low dose of thyroid medication or optimizing their dose? If they're ready on it we could use iodine or to encourage them to eat more seaweed in their diet as a natural source of iodine and other healthy factors which help the body cleanse If it's at the cell level, maybe we need to use coenzyme Q 10. Sometimes I tell people you don't have enough oxidation. I want you to use hyperbaric oxygen to really get the oxygen into the cell and that will stimulate your cells to uh do some housekeeping and cleanse out those toxins.

So again that's what I love about the gema system is that uh I don't I don't guess what to give my patients. The system tells me very clearly you need this level and and nobody has to take anything they don't need.

Because it's really targeted and personalized to who the person is and what their specific imbalances are. – [r] One follow up. Then I'll hand it back to Steve on the on the increase the top.

Or if in order if the autopsy markers are low and autopsy gee is good. We want to increase it. What what particular approaches do you recommend for that? And you know some of our other speakers have record. You know talked about rapamycin or d sat nib as senolytics or autophagy increases um what what is your approach to increase autophagy and in a patient who needs it. – Well again, all all options are on the table for me. I once I have an abnormal autopsy ji uh score, then I triangulated to other factors. So for example, we have uh an index or a formula in the gemma system which looks at uh apoptosis which is natural cell death. But this specific version of the estimation is saying, hey do you have a traumatic apoptosis? And that that index is linked to chronic low grade

infections or physical trauma? So if that's the case then I think something like rapamycin is a good idea. Sometimes I use many cycling.

It really depends uh if cortisol is low and we need to boost things. I'm not opposed to using a one month up and down course of steroids. But most of the time, probably 80% of the time I'm using natural remedies.

There are uh there are remedies like birch or juniper uh which are really good for helping the liver and kidney cleanse. I might want to use uh something like coenzyme Q 10 as I mentioned earlier to help improve mitochondria and their production of cell energy called A.

T. P. I always I always triangulate one result to two or more other results to personalize the approach. Sometimes Metformin could be the right approach that people want to use the medication because that will improve insulin resistance and that could be a key as well.

And sometimes I use uh I investigated for low grade infections and I'll use something like cat's claw or I'll use a combination of doxycycline and uh Azithromycin for 4-6 weeks. – [s] Maybe we can focus in on an area I know that you have a particular interest in and is very relevant to this topic and that's Alzheimer's disease, both preventing and uh and early identification.

Uh can you tell us a little bit about how you got interested in that and then how you how you approach that from an endo biology perspective? – Yeah. Thanks Stephen.

Alzheimer's prevention, early treatment, and nutrition

I in the course of my work uh I started to have patients who had a very strong family history of Alzheimer's disease. Typically there would be three or more relatives in the generation just about them like mom, uh you know an uncle and two aunts or some combination like that.

And uh they said uh doc I don't want to get Alzheimer's like the folks in the generation above me or like my older siblings already has it. And I started to notice these patterns uh in the gemma system and the developer of of endobiogeny had a theory of how Alzheimer's started and I based my study on what he identified, which is how those plaques, those um amyloid plaques form in the first place.

And based on that, I created some new formulas to triangulate this process using some more modern research including the important role of loneliness and the psychological variable of feeling isolated socially.

So I look at my the gemma results given a family history and I say, okay right now you don't have a risk or you do have a risk. And and then what I do is I look at the uh companion results in gemma that that indicate this is what you need to change.

Is that their thyroid, do they have for example, a functional hypothyroidism where their numbers are normal but their cells aren't sensitive enough. Do they have too much inflammation? How are their mitochondria doing whatever the problem is that comes up in the gem a panel which is sort of like a functional profile of Alzheimer's risk. We just target that and then three months later we repeat the blood work and and the numbers are getting better and clinically I say, can you remember things when you walk in a room? They're like, yeah, like do you remember directions when you're on the highway?

They're like totally. And another thing I noticed which was so compelling is that I had a group of these patients who one year into treatment stopped everything without telling me and their numbers all reversed. And then I started them on treatment again and their numbers got better again. And I'm like, I think I'm onto something here and it was really the evidence I needed to see how important certain variables were and how to treat them. – Yeah, that's that's fascinating.

It uh and we've been hearing from Dale Bredesen and some of the others on doing similar things with like targeting the toxin certainly plays a role correcting deficiencies.

And then above and beyond that you mentioned lifestyle things like stress and exercise. How about nutrition, is there any is there any consistent nutritional recommendations for people to decrease their risk of Alzheimer's or or hopefully even walk back some of the the symptoms that they already have it.

– Yeah, well I think that uh being on an anti inflammatory diet is as a general principle, very important. That general advice is too vague because in my experience and when you look at the nutrition literature, basically, I would put it this way, if you look at the three big new nutrient groups, you have proteins, you have carbs and you have fats.

What I've observed is the reason that there are so many diets that are successful is that they all do one thing, they have one thing in common, which is they tell you to eat two out of these three groups and minimize the third.

Because if you look at a paleo or keto diet, you're eating proteins and fats and avoiding the carbs and the blood sugar spikes. If you're on a mediterranean diet, it's more of um whole grains as the source of your carbs and uh vegetable bases of your of your fat with the lean proteins. So it's really more protein and whole carbohydrates with little fat.

And you know the point is you can reduce inflammation through various selections of these macro nutrient groups. And again in the gemma system we have a modeling of cellular level nutrition which is so we're looking at something called cell permeability, which is how soft your cell membranes are. Are they soft?

Are they firm? How much do you depend on passive movement of nutrients? Small molecules of nutrients just through the membrane. How much do you need receptors to help bring in nutrition? I look at this insulin, insulin resistance and other factors. And then I say okay for you to reduce inflammation, you need to be more on a paleo or keto diet.

Or I want you to do some intermittent fasting or I want you to be on more of a high fiber mediterranean diet. So anti inflammatory is great. I think it really needs to be personalized to the type of person and there's many ways to get to an anti inflammatory diet. – [r] Yeah the that's great advice on the low carb, low carbohydrate recommendation. We're seeing that pretty much consistently for most of our speakers. The one other nutritional recommendation that comes up and I wanted to get your take on it as far as inflammation was in addition to lowering carbohydrates was also something with fat and that was to avoid um industrial process seed oils uh that like that are high in linoleic acid.

The omega six versus omega three ratios. Do you feel is that important for your, your program? Or is it mainly the carbs that people should focus on? – It's it's it's everything.

I always try to consider everything all at once because the seed oils are important. But you know, if you're using olive oil, but your heat overheating it and it's smoking and then you're frying something that's probably worse than using a refined seed oil at a lower temperature.

You know, I think it is a little bit of nuance here when you get into the nitty gritty of everyday living from my perspective. But in general, I would say if people could fry food as little as possible or use water as a type of sauteing to soften food and focus more on baking in parchment paper, to seal in the juices and the moisture, more steamed vegetables.

This would clearly be the optimal way. And then something like olive oil is best used on top of the food as a lubricant for taste and as a calorie source because olive oil is a healthy fat and it's, it's good to have some fat in your diet.

– [s] These are very useful pieces of information for our audience Kamyar. Thank you. – Thank you. – [s] Getting back to the Alzheimer's question, it seemed to me, you were referring to people who were trying to prevent uh, the onset of Alzheimer's and so you were putting them on certain regimens and you're seeing their numbers that relate to potential shift.

What about people who maybe already in that process of of having the disease? Are you finding any of your

approach is helpful for that population? – I've only found them helpful for early stage full onset Alzheimer's uh it's the same indicators in the gema system, they're just more extreme in their their abnormalities, either too high or too low.

But honestly, I haven't found a lot of good success in a later stage. And my conclusion about that, because I give treatments and the numbers in the gemma system improve, but the clinical condition doesn't improve and having worked with families.

My conclusion is that what we're not changing is the psychology of the loneliness. And I really think that there's an underappreciated value of a person's willful desire to be isolated from the world and kind of check out part of my treatment and pre and early Alzheimer's is to work with psycho dynamics to talk about trauma. And I use different types of remedies, including some homeopathic that I found really help people start to come out of that feeling of loneliness and isolation. I really think this is beyond the nutrition beyond the hormones. We've got to understand the psychology of isolation. Because what is all, what is Alzheimer's at the cellular level? Your cells are being isolated behind a wall of amyloid plaques and in a sense, you're emotional heart is being isolated behind this wall of being kind of checked out. – [s] Yeah, I can really appreciate that.

Because what you're describing when you say people who want to check out that some degree describes people who are depressed and there's all kinds of research that shows increased risk of all kinds of disease with depression.

– Yeah, I find that You know, if you think about a Venn diagram or these overlapping circles and you put Alzheimer's disease in the middle of it, you're going to have an overlap with depression.

You're going to have an overlap with um trauma.

Longevity priorities and practical daily habits

You're going to have an overlap with anxiety with type two diabetes or adult onset diabetes. You have overlaps because they're sharing some common symptoms like insulin resistance, like uh insufficient autophagy, inflammation. But when they all come together at the same time, that's Alzheimer's in the face of somebody who feels lonely and wants to check out and let me just say as a side note that I have a lot of patients who say doc, I think I have dementia, I can't remember things and its tip of the tongue and all these things. And what I also really like about using the gemma system is I can say it's not Alzheimer's your problem is not that your brain is running too slow. It's actually running too fast.

It's running so fast, You can't organize your thoughts. But I don't want you to worry about Alzheimer's that's not where you're at and actually Stephen again, I recommend that people do neural feedback, which is one of your specialties.

And uh, uh, I find that that helps meditation again, you can use some herbs to help the brain slow down so you feel like you're in control of the carriage, so to speak and the horses aren't just pulling your mind around in every direction.

– [r] Well, we've covered a lot of different, fascinating topics today. I want to back up and just hit on one more thing maybe about longevity in general.

Are there or Are there any areas of longevity that you're excited about longevity research that maybe that you're not working indirectly. But what do you, what do you see as the future for longevity? The things that really get you excited?

– Well, I think the future of longevity needs to be working with 40 and 50 year olds and optimizing the trajectory as early as possible. And so I think that the research that's been going on in understanding early and very subtle signs of dysfunction is really the most promising because if we continue to live in a crisis culture, which just wants to react to a problem once it's there, we're really not gonna move the ball down the field on longevity, right? The

investment in longevity starts when we're still feeling good and healthy.

Of course you can start at any time and you can get some level of improvement. It's never too late to expand your capacity for vitality and health, but the earlier you start, the better your results.

So I'm really excited about research that's looking at slowing down the aging through this whole person model, your psychology, your epigenetic six, your diet, your lifestyle altogether. – [s] So you've, during our talk today you've really touched on a lot of areas and a lot of things that people in general can can do as we close. Can you identify a couple of recommendations you would give to our audience? Um that would show sign would show improvement.

– Oh yeah. In terms of their general longevity, you know, this is gonna sound a little simplistic but with all my training in all my years of experience, my path has come to the simple observation that fresh air, clean water, recognizing when you feel tired and taking a nap or just closing your eyes for a few minutes and doing deep breathing, what I call rhythmic living.

These are probably the three most important things that a person can start doing right now today to improve their health. And there are so many studies that indicate the importance and the positive effects on reducing inflammation and reducing stress improving in blood sugar management.

Just from these three steps, I guess if I want to add one more thing, it would be movement because as they say, um sitting is the new smoking and uh studies, newer studies have shown that if you sit for four hours at a time or all data desk, even when you're exercising a couple of days a week.

It doesn't reverse all of the harmful effects of sitting down all the time. And so getting up and frequently moving around, parking at the end of the parking lot and taking the long way to the store, you know, walking up a couple of flights of stairs if your knees are okay with it, these little decisions every day are seriously the most impactful things you can do. You don't need to get a supplement.

You don't have to do a blood test. You don't have to see a doctor for it. It's totally in everyone's hands to do this. And this is where I would start.

– [r] You mentioned a couple of websites that people can go to. Maybe what's the best way for people to reach you on social media or your own personal website? – Yeah, thanks Robert.

The best way to reach me is either through my medical practice site, which is called FSHcenter.com for full spectrum health or through our um professional community website called learnendobiogeny.com in E E N D O B I O G E N Y dot com. And uh you can find me on facebook and on instagram under learn endobiogeny and my website, full spectrum health, my medical practice. – [s] Okay, thank you again, it's been a pleasure to talk with you and really get your perspective, which is a really global, comprehensive perspective.

So Kamyar, I thank you very much for joining us. – I enjoyed the conversation, and I want to just express my gratitude to both of you for creating this forum and a place where the best minds can get together and share their knowledge with everyone.

Thank you. – [s] Thank you.