Biohack Your Age: Using Data And Technology For A Longer, Healthier Life Transcript

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Introduction and Guest Background

Well welcome everyone. This is Doctor Rudy Mueller, and I am here with Doctor Beth McDougall. Thank you for for coming today. Doctor McDougall. I appreciate your your time and I look forward to this interview.

Me too. Yeah. All right. So I would just like to introduce Doctor Beth to everyone here. You may not know her. Some of you may know her. She is a internationally renowned integrative physician specializing in multifactorial degenerative disease.

So really looking at all of the different factors that contribute to degenerative disease and then how to address those root causes. She's the co-founder and medical director of Jason J.

Y Zen, which is a cutting edge bio optimization facility in Mill Valley, California, right outside the San Francisco area. A pioneer in the ortho, molecular, nutritional medicine and European biological medicine.

Doctor McDougall was among one of the first physicians really trained in functional medicine back in, like the late 90s. Is that right? 1990. Eight. That's hard to believe.

You, your longevity is working out well for you. So her expertise is really in the biophysical, diagnostic and therapeutic techniques based on the quantum principles, which I'm really excited to dive into, because that is not an area that we operate in from our practice perspective.

So learning a little bit more about how you are utilizing the bioenergetics is going to be really cool. And I look forward to this, this interview. She also works besides at Jai's and is the chief medical officer of Canobie, which is a fund supporting health companies focused on energetic, diagnostic and healing technologies.

She also serves on a couple advisory boards for the Energy Medicine University and the Scientific advisory board of the Resonance Science Foundation. So welcome, Doctor Beth.

Thank you so much. Happy to be here. Yeah that's great. And so really, I mean, when we think of longevity, we have there's different definitions of longevity, right.

In conventional space maybe, you know a little bit different in the functional medicine or the longevity medicine space. So just to start out pretty easy here.

How do you approach longevity or what do you think about when you hear the term longevity? Well, to me I think about lifespan but also health span and, you know, trying to help people to not only extend their life, but to live a vital life for their even in advancing age.

And I feel that that's possible now with the recent advances in kind of science and to also all of the technologies that are available and this kind of accumulated understanding about what we can do to enhance the energetics of the body, even at the most fundamental cellular level, like how much energy this the mitochondria are producing, we can we can improve on those energetics.

And then that just has beautiful downstream effects. That really affects the rate of our aging. And I think that at this point in our history, we can actually reverse biological age.

And so even though it would be advancing chronologically, we can we can reverse biological aging and feel more youthful at an older age than we did even ten and 20 years prior.

Yeah. It's beautiful. And, you know, we're interviewing, Ryan Smith as well on this stage. What interventions are impactful for it? So you mentioned the mitochondria as being an important area.

What are some things that you're doing with the mitochondria to try to help impact that reversal of the biological age? Different types of therapies to stimulate my autophagy, which is where the body will edit or repair or replace damaged mitochondria and birth new mitochondria.

And there's so many ways of approaching that. So one way that we do it is nad IVs. So intravenous NAD has been shown to stimulate my autophagy.

Longevity, Mitochondria, and Biological Age Reversal

And it's also an energy catalyst. And it just improves energy production in the mitochondria. The other thing that we do that is little less well known is we do intermittent hypoxic therapy.

And so we we have this cell gym system here and one of the largest installation of cell gyms in the in the country. And six of them. And what that is, is where you're lying in a zero gravity chair and breathing oxygen through a mask.

And then the the coach will cycle you from normal levels of oxygen to mild hypoxia and back four times in a 40 minute session. So it's it's like being at sea level and going to altitude and coming down and going up and down four times.

And if you do that repeatedly, you begin to release something called half one alpha. And in 2017, three scientists won the Nobel Prize for figuring out what have one alpha does.

It triggers the transcription of thousands of genes that are involved in our body's kind of energy production. So it also, it triggers genes that are involved in how we utilize oxygen as a fuel.

And, you know, kind of a catalyst for energy production. So it enhances oxygen delivery, it enhances, oxygen utilization and even the coupling of oxygen in the first enzyme of the electron transport chain to really improve ATP production.

It has also pretty interesting effects on glucose transport and, and, you know, shuttling glucose from the bloodstream into the cell in an insulin independent manner.

And that will improve kind of our insulin receptor sensitivity and our ability to utilize glucose as a fuel source for energy production as well. We do, some hyperbaric oxygen.

We do kind of, altitude training where people are doing, you know, fluctuating levels of oxygen. But while they're, they're working out and then, of course, supplements, you know, so it's can be very helpful, like, you know, coenzyme Q10 in your life, a and and then I find it's, it's critical to, to both diagnose and then treat detox chemicals that were exposed to because a lot of things are direct mitochondrial toxins.

So we know that, mycotoxins that are produced from mold exposure are direct mitochondrial toxins. And so are are some other types of, of, you know, chemicals used industrially.

So I do testing here where I will send the, the blood to Europe. And they'll do kind of, look at toxins complex in the cell membranes and the membranes of the mitochondria.

And then they'll look at kind of metrics of mitochondrial function to see if it's if they're suppressed. And a lot of times with aggressive detox, with phospholipid therapy and intravenous glutathione and methylated agents, you can start to both flush and then mock these toxins up and kind of rout them out of the body.

The other thing that can be really helpful for mitochondria is red light therapy. You know, red red light wavelengths

and near infrared light wavelengths have been shown to, kind of active cytochrome c oxidase, which is one of the terminal enzymes in the electron transport chain in the mitochondria.

And that enzyme can get blocked by intracellular nitric oxide production and by certain toxins. And so I have had, really good luck combining the detox protocols with red light near-infrared light therapy.

It actually accelerates kind of the the detoxification because the, the light produces a confirmation or change in that enzyme that literally will kick the toxin off the off the enzyme, kind of liberating it again so that it's free to begin producing energy maximally again.

And so you're really addressing the mitochondria, you know, in multifactorial, you're not only thinking about ATP production, but the membrane of the mitochondria, what toxins are going to be disrupting that, what nutrients are needed for good ATP production along that electron transport chain, and then utilizing different strategies like near infrared light therapy, hypoxia, these different hermetic stressors, right, to try to push and, you know, create a little bit of stress.

But then we rebound from that stress similar to, you know, exercising being a or medic stress to be able to re, you know, reinvigorate those mitochondria and restore them through the process of my autophagy.

And so, so true really. I mean we do our best to not just talk about lifestyle aspects. Of course. That affect mitochondria like exercise. Even just going outside in the morning and, letting sunlight wavelengths come into your eyes, like, you know, soon after the sun crossed the horizon, because those wavelengths of light just kind of activate the mitochondria and actually stimulate, mitochondrial water production.

So water is produced in the mitochondria and the, the infrared wavelengths of light that, that kind of predominate in the early time of day will help to structure that water.

And that actually moves those those complexes, those enzyme complexes closer together in the mitochondrial membrane. So there is more efficient transfer of electrons down that electron transport chain.

So there's so much that we can do from, from exercise to cold plunging to sauna therapy to these kind of things, like actually hooking ourselves up with the diurnal rhythm of the of the earth, for example, like that also improves our hormone balance because you go out in the morning and, the first step in steroid biosynthesis happens in the mitochondria.

So when, when the, when you absorb the wavelengths of light you catalyze the conversion of cholesterol into pregnant alone, which is the first kind of grandmother steroid from which all the other steroid hormones are produced.

So, you know, that goes to DHEA, which goes to estradiol and testosterone or to progesterone and cortisol. So so you get you get you really amp up that whole kind of cascade by going outside.

Yeah. That's that's great. I mean, that is one of the primary things that, that we should be recommending to everybody that's listening is if you can get natural sunlight in the morning while the sun is rising or close to the time of the sun rising.

And so when when you're recommending that your are recommending that they remove glasses, contact lenses. Yeah, that would be helpful. It would be helpful.

And then ideally you go out with bare feet. Yes. Grounding at the same time, which is useful for your cell membrane potential. Yeah. Yeah. So I was I just came back from Puerto Rico and I every morning went down to that beach, eyes facing the sunrise and feet in the ground, doing the grounding.

So that's wonderful. Any other lifestyle aspects that you focus on? I mean, obviously if you're reversing degenerative disease, you refocus on nutrition.

But when we're thinking about longevity, is there anything specific to nutrition that you're, that you're recommending? Yeah. Well, first of all, as as I'm sure a lot of your speakers are talking about these days, you know, this the slowdown in the metabolism that a lot of people experience as they age is kind of this slippery slope into rapid aging.

Like I kind of, you know, as we start accumulating belly fat, we begin to develop more insulin resistance. And then that catalyzes this kind of bad feed forward cycle, kind of like slide into, many of the diseases of aging.

So it's just absolutely so critical that we, we begin to impact that at the kind of like the most upstream point possible. And so dietary interventions are critical for healthy aging, and they're different for different people.

You know, I that's that's the thing. So here we do a lot of sorry really horse. Hold on one second. We do a lot of testing on people to kind of try to try to ascertain what would the best diet be for you at this point in your life.

And in various. So, we do biometric testing of, resting metabolic rate. We do, VO2 max testing, of course insulin, glucose, hemoglobin A1, C and kind of inflammatory markers.

We have some specialist within our ecosystem that does lactate testing and, you know, the kind of the old fashioned glucose tolerance test, but with insulin and all the different points and there's some very incredible nuances, like when you look at it with how someone handles, a glucose load, and also, of course, continuous glucose monitors.

And we just try to pull all that data together and just kind of figure out like, what is the right diet for you? But generally speaking, this is more generality now.

Most people, as they age, do best with a protein forward diet that still contains a lot of green vegetables and kind of living foods, so that you're getting all the life force and the electrons and, you know, the vitamins and antioxidants that your body needs to get to maintain that cell membrane potential and, and nourish yourself.

So but the protein forward aspect of the diet is so critical because, as you know, muscle mass is critical as you're aging. And it is, you know, many, many people say the currency of longevity.

And the more muscle you have, the healthier the actual muscle cells are. The the easier time your body's going to have sinking the glucose out of your bloodstream into the muscle cells and keeping your insulin receptors more sensitive.

And your your your muscle cells are the easier time your body's going to have to sync the, the glucose from your bloodstream into their, into the muscle cells.

So we store we store glucose as glycogen in our muscle cells. And that sensitized the insulin receptors. And then really keeps your metabolism functioning at a higher level.

Yeah. And so really looking at glucose insulin hemoglobin A1 C are kind of the key blood markers to be thinking about. And then I like that you're doing a glucose tolerance test as well which you're looking at either you know potentially all of these.

Sunlight, Grounding, and Lifestyle Foundations

But a 30 minute window after taking the glucose load or an hour or two hours, postprandial, maybe even up to a three hour, depending on the individual, and then baking specific recommendations to the individual based off of the results.

Yeah. Yeah. Do you look at anything else, like do you look at genetics at all for trying to pick a nutrition plan? Because you see a lot of these, you know, genetic companies putting out things or we're going to pick the best diet for you.

And it's based off of genetics. What are your thoughts on on that? I don't because, you know, you can if you bathe in your genetics, in the bad diet for you, that's going to cause epigenetic changes that are going to be far more consequential than you genetics.

So it's really about looking at these functional studies. And, and now in this day and age where we have the ability to wear the continuous glucose monitor and really just take a look at how is your body handling these, your food that you're eating in real time, and how is that affecting other metrics like your sleep, your your sleep stages, and the quality of your sleep, which, as you know, is so critical for our health and longevity.

So to me that functional studies are so much better. Yeah, beautiful. And so it seems like I mean, your practice is very, data driven forward. So you're looking at a lot of data, besides the CGM, the continuous glucose monitor, for those of you that don't know, is, one of those things that you'll see wearing on a person wearing on their arm or, you know, some maybe wear it on their thigh that's constantly monitoring your glucose levels.

And then you can look at how your lifestyle, whether it be stress, food, particular food, how your sleep is affecting your glucose levels. So are there any other tools that you would put or rank up there with?

The CGM is providing valuable data, real time data that's driving your decision making as a clinician. Body composition. Body count? Yeah. You know, having a smart scale at home, I think, you know, not all smart, smart scales are totally accurate, but if you're using the same one and you're looking at how it's trending, that I think that can be helpful.

And then, of course, periodically doing a Dexa scan or something like that. So you're really, really looking at that and trying to data drive your lifestyle to optimize that data.

Those metrics. Yeah. So I think that when we talk about genetics, genetics is a is a cool piece of information to understand and learn. You mean awesome data from there. That's valuable.

But really it comes down to how is your lifestyle interacting with your genes, resulting in the, you know, an elevated glucose level or, you know, your biometrics or for your, your Dexa being off.

Right. Looking at body composition. So cool. I think that that's, I really like that you're, you're data driven and really being specific and personalized to the individual.

Thank you. Yeah, I think that, data is such a powerful biofeedback tool. You know, I, I think when I was a really early adopter of, ordering, for example, and had sleep trouble for years when I went into perimenopause like years ago, and it was so helpful to be able to just pick apart every aspect of my lifestyle and, and then really prove to myself, like what it was doing to my sleep quality, you know, like what time I ate dinner, what I had for dinner in terms of the ratios of the macronutrients, whether or not I exercise that day, whether or not I had meditated that day, so many things would contribute.

And, and, I think all of these tools are like that. You know, if you look at your, at your CGM and, and you like you said, if your stressed, you're going to get different values.

If you know, you're, it's not going to look as good as if you're eating the same food when you're not stressed or if you've had a poor night's sleep, it's going to affect your CGM because your body's in a state of stress.

So so it's it is, I think so helpful to guide your and modify your lifestyle. And then there are other things, I mean, so we touched on nutrition, stress, I find that the hardest part of the part that we, that a lot of practitioners can skip over and that people will miss is like the mind, body, spirit and particular things.

Or you focused in on, in that, in that area, in that domain.

Nutrition, Metabolic Testing, and Personalized Diets

Thanks for asking that. I completely agree. I don't feel we can have vitality and a good health span unless we're focused on our mindset and doing some energy maintenance.

You know, in our body. I think we, I advocate meditating and doing a body centered meditation where you really doing a kind of a conscious scan of where you're holding tension or where you may have pain, and then you kind of spend some time in those areas as a window into where you may have some energetic holding, whether it it's from the day before having, interaction with someone that was, you know, not so savory and you'd really never did the kind of clearing of that, you know, you may have tension in your, your midsection, almost like your solar plexus.

And you may have been holding that for the last 24 hours. And if you keep accumulating stuff like that without kind of going in, taking a look at it, clearing it out, you eventually would have some translation into a physical problem in that area.

So so I really advocate doing a full body scan, kind of grounding off energy that once you've really spent some time with you, you can kind of understand what your holding there and what it has to communicate to you.

You can then ground, ground that energy off into the field of the earth. So I really think it's good to set up a practice where you, we are energetic beings, where you're anchoring your energetic field into the field of the earth and knowing that we we store the reverberations of everything that has happened to us in, in our field.

And sometimes it can cause disruption if we're not kind of, doing regular maintenance. And becoming aware of those types of things can be difficult. So when you say, like doing a scan, can you talk a little bit more about what that is specifically?

Are we are we hooked up to something that's doing a scan, or are we scanning ourselves as we're meditating and just trying to find the areas where we're holding tension or the feelings that are coming about when we're when we're in that state of meditation?

The latter. Yeah. So are you familiar with the chakra system? Sure. Yeah. I, I, you know, the chakra system, we have these energetic set centers and there's seven major ones.

There's many minor ones. But but that tends to be kind of a repository for, for storing information. And I really see these as true organs, like their energy to kind of, step up step down transformer.

It's literally where we're translating kind of subtle energetic information from the field we exist within and from our interactions with other living beings within this field.

We translate those subtle energetic signatures into the kind of sonic and chemical language of our endocrine and autonomic nervous system. You know that that really translates into the body.

And so sometimes we will store kind of, energies in our not only our auric field, but also our chakra system. And so doing a scan where you kind of position your awareness in each of the major chakra centers can be really helpful, where you just sit briefly in each one and, and it's not like you're thinking about it.

You're more of kind of kind of positioning the seed of your awareness there. And then, kind of tuning in to the energy that's there. And, but it's there to teach you and you know, what what it's about.

And, learning what you need to learn. And then just kind of clearing the residue. So is there a way that you would teach a beginner on how to do this.

Well, someone I could refer people to my book. I wrote a book actually Christine Blueprint and I do go through a chapter on this and have a guided meditation in the book and it's also on, on audible as well.

So that's a nice way to, to get that, meditation. Excellent. Yeah. I think the guided meditation, especially for beginners is the, is the, the key. So yeah.

Great. So and we talked about the data driven, we talked about the a little bit about the mind body spirit. So your clinic chosen really is a bio optimization center.

It sounds like from, you know, offering the VO2 max to the, to the hypoxic training, talked about any device, infrared light recommendations. So with your center, is it do you have it sort of multi practitioner center or if people are out in that San Francisco area, I just want them to get a little bit of a feel of what kind of center it is or people can travel to you to, to maybe, have you as their practitioner and get served by, some of the services that you offer.

Yeah. So Gysin is an extension of my 26 year practice. So we started Jason a couple years ago, and it's a beautiful bio optimization facility. So it has my practice and practice of Doctor Maria Marianne, who's a natural path, the practice of Doctor Brooke Bennis, who is a osteopath that does structural health disorder, you know, and pain syndromes and joint problems.

And then, Doctor Harris mascot, who's a medical doctor that's a sports medicine physician. And, who also he and I kind of work together on cracking his metabolic codes.

You know, where people are having stubborn changes with their metabolism. And that really is going to interfere with their ability to to age well and live a healthy life.

And then we have a lot of experts here. So we have, so, biometric testing department that's run by a physiologist, named Christina. And then we have a neuroscience department run by Cindy Reynolds.

And that is such a lovely aspect of our center, because what I find is that it's also critical, for healthy aging, to look at how the brain is functioning.

Some people's brains. I would say a lot of people's brains are locked into kind of a constant state of fight or flight. Their limbic system is firing 24/7 because they've experienced some trauma in their life.

And the trauma can date way back to even birth trauma sometimes. And, we can go in, in a very few short sessions of, neuromodulation to kind of calm that limbic system down, which improves the autonomic nervous system balance, and that helps everything that I try to do as a medical doctor, you know, whether it's like lower someone's blood pressure or improve their immune system or their ability to do toxic fire, you know, fight an infection or whatever.

Mind-Body-Spirit Practices and Meditation

Then we see people, we do a lot of athletes here, you know, professional prize fighting athletes and NFL players and things like that. And so and we have a lot of people not only with head injury, but repeated head injury.

That leads to a low voltage state in the neurons. And that does not bode well for healthy aging unless you go in there and actually do things to rekindle the nerve functionality.

And so we do a lot of targeted video light on the, you know, in the areas of the brain that are at low voltage, we do, exercise while breathing oxygen.

So what and the type of exercise we do, because there's been some good studies on brain healing is with the vascular device. I don't know if you know that. Right. Yeah.

Sebastian was is one of the, the founding, founding, members of of Jason and, his, his family made, you know, produced by faster and Vespers where you're, you're on this kind of cross-training device where you're working with your arms and legs while you have these compression cuffs on your upper arms and upper thighs that have cold liquid going into it.

So you have compression ratio and exercise. And we do that while someone's breathing oxygen, and getting via light. And then we do a lot of peptide therapy like cerebral lyson and things, you know, Cmax and Salang and

things like that.

And Mozzie to try to really up the, the mitochondrial function in those neurons and get them functioning again. And we data drive that completely with serial 19 channel quantitative EEG brain maps.

So that has been super rewarding to just kind of unwind, you know, chronic traumatic encephalopathy and different types of, you know, brain injuries. And then we also have a, integrative body work center here.

So what I the reason why we have kind of the whole medical department, the neuroscience department, integrative bodywork department, and, and the biometrics is that I just watched how people aged.

You know, I've been doing this for so long now, 26 years. I have a lot of patients that, when I, when I came out of, out of residency that are still with me today, you know, and, so I've been able to watch a lot of people age and notice that, that people would often either develop a physical health problem, you know, often from these kind of underpinnings that we were have already talked about, like whether it's the insulin resistance or mitochondrial dysfunction or, you know, kind of toxic accumulation that's disrupting cell membranes, etc., leading to receptor resistance.

But they would develop a physical problem or they would be so kind of focused on their health that they wouldn't, but then they maybe would have some cognitive decline or they don't have any of that, but then they would have structural.

A lot of people out here are super athletes, you know, whether they're professional or non professional and, you know, so you have a lot of wear and tear on the joints.

And so people would have, you know, kind of like postural issues or asymmetrical kind of holding patterns in the body that would lead to abnormal wear and tear in the joints.

And maybe they would need a knee replacement. And then now later it's a hip and now it's like spinal stenosis. And they've got a back surgery. And then that leads to something else.

And then you just watch them snowball down and I'm sure you see that in your career. But I, I have I've seen that so many times. Like if you just watch people deteriorate in front of my eyes from one surgery to the next.

And so, so we are so committed here to looking at, structural symmetry and when during the going through functional movement and again, data driving that also we have run DNA.

So we're watching people's gait on a treadmill. And when they're running, when they're walking and looking at how the body is moving, and then if there is kind of a asymmetries, we're targeting that with, with focal and radial shockwave with deep tissue work.

Jason Bio-Optimization Center and Multidisciplinary Care

And then Brooke does a lot of regenerative therapies for the joints so that you can maybe spare people these therapies. We do a lot of, you know, PRP and, biologics of, you know, exosomes and, and, you know, kind of off the shelf PRP and that sort of thing, stem cells, etc..

And then the focal shockwave is so great for, for stimulating stem cell release within the joint tissue and just really liberating the joints so that the body can re assume, you know, appropriate posture.

And we do corrective exercises. We've got three physical therapists in our center, etc.. I mean, this is a multidisciplinary approach to health and longevity.

And I can imagine, that most probably started out coming to you because of some sort of condition, symptom sign degeneration. And then you've been able to work with them from their place where they entered to now where

you're more focused on on longevity.

So, I don't know if if you feel like you've got the ability, but if you would like to, I would love to hear maybe like a case study or an example of taking a person from where you met them to where they are now and implementing all of these different disciplinary approaches that you have at your practice?

Absolutely. Yeah. I mean, I'll, I'll talk with I talk about a pretty extreme case of a health issue that I've been able to resolve. So I had someone come in who was diagnosed with Lewy body dementia, and I had very.

Scary. Offer and helped her with a pretty major problem. So she brought her husband in and, you know, previously when he received that diagnosis, they asked the doctor that they were seeing like, well, what can we do about that?

And he said, nothing, really. You just need to kind of enroll in an elder care facility and get get your affairs in order. So he came here and I said, well, what did you do for a living?

And he was a pipefitter in the semiconductor industry as opposed to just tons of toxins and arsenic gas and all sorts of things like that. So, so we, did the blood test where I sent it to Germany, where we looked at toxins lodged in his cell membranes, and sure enough, you know, it was loaded with with a lot of industrial toxins as well as heavy metals and even mycotoxins and things like that.

And so we began very aggressive detox with the phospholipid therapy and, the, the glutathione and the methylated agent. I balanced his hormones and then, turned my attention more to, regulating mitochondria with the NAD devices responded beautifully to those we've done a lot of cerebral license for, you know, improving, growth factors in the brain.

He's done a lot of red light therapy. And of course, a lot of the brain training work where he, we have looked at, you know, his brain, he had like kind of a full encephalopathy in the beginning.

And that is not what you see with Lewy body dementia. It was like his brain was suffering like a toxic injury. So it's able to see that, from, from, this quantitative EEG and, and then keep clip away at the, at the detoxing and sure enough, you know, just he really regained his functionality.

So he was, you know, unable to work any longer because he wasn't in his he, he was having dementia symptoms and, and unable to even manage projects around the house.

He, was unable to socialize because he couldn't keep up in conversations. And then he gradually began to, like, remember how to keep score and pickleball.

He he, you know, was able to socialize again. Travel kind of navigate it while driving in unfamiliar environments. And now he's like managing home remodel projects and things like that.

He also had the kind of the comments like kind of so quickly and, and, associated problems of, REM sleep disorder where he would act out his dreams. That's very common with different neurodegenerative diseases.

That's over now. He, you know, had constipation that's gone now. So a lot of the common things you see with Parkinson's, you know, have actually gone away.

His movements also have become much more fluid. And yeah, he's just, you know, and he's still at it. We're still at it. We have a lot of work still to do.

But, you know, after about a year in, he's really a changed man. Yeah. And and people fail to realize that it's been I mean I don't know if you mentioned that I missed it.

How old is this individual when he came. See he's in his 70s. Yeah. So he's had 70 years or 60 plus years of being

exposed to different things, not detoxifying.

Well, and so this damage has occurred over that time. And so it does take time to get a person back within a year. To have those types of changes is pretty miraculous.

And being able to utilize all of those tools in your tool belt and withinside of your relatively, multidisciplinary clinic helped accelerate that process.

Whether been peptides or infrared light. Understanding the, you know, the brain, whether it's through a brain map or or MRI. That's wonderful. Yeah. And it's just like other examples would be more like, someone coming in who's been, you know, an executive and has made it in his career and he now is just interested in aging.

Well, you want to. Yeah. Enjoy the rest of his life. So a lot of times people will come in and their hormones are an absolute mess.

Case Study and Closing Thoughts on Healthy Aging

You know, they may be have had some hormone pellet insertion. You know, testosterone is through the roof. It's metabolizing into DHT and estradiol. And now they're PSA is elevated and, you know, things like that.

So we'll you know, I'll kind of fine tune their hormone balance. And not just looking at testosterone but like their adrenal hormones. There, their thyroid, etc., and really paying attention to the metabolism of those hormones and, and then put them on a kind of a optimizing, rotating peptide schedule for the year, as well as do some pretty aggressive detox because, as you said, like by the time you're 60 is accumulated, so many toxins in your cell membranes and just really lead to membrane receptor dysfunctionality.

And not just insulin resistance, but leptin resistance. And even, you know, where your neurotransmitter receptors are not working as well. And and all of that.

So, so it's so important to detox, and and then just find that that's that great diet for them, that right exercise program for them and and begin to kind of teach lifestyle science like so we don't do that anymore, you know, like Western medicine is unfortunately, you know, kind of really failed us in a lot of ways because it's just, you know, it's a great for emergencies and great for, you know, if you need a major intervention, if things have gone, you know, progressed to the point, but it's not helping people to to stay healthy.

It's not reversing the trajectory of chronic disease. It's not, teaching people how to live in a way that it that it facilitates a vital life. Right, right.

Well said. Also, I think that, what you have going on at Jason is, is beautiful. And, I appreciate you taking the time to share the case studies as well as your experience today with us.

You know, the final thing I want to find out from you is what is your goal for your chronological age? What do you want to reach? What's that age that you want to reach?

I want to live over 100. Live over 100? Beautiful. Yeah, it's certainly possible. See, my my great grandmother did, and she was so healthy right at the end, so.

Yeah, that, And that's the important thing, right? That we started this whole conversation off with. It's about being functional and having the health span to longevity.

Right, exactly. Well, excellent. So if people are interested in learning a little bit more about you, maybe reading some of your material that you mentioned, a book earlier.

That's on audible for that has a chapter on meditation. And then, where would they find you for Jason if you could give some information around that to help guide people that are looking for more?

Yeah. Jason.com. That's all right. Geez. Ian and accountant follow me on social too Bethany Dougal, M. D.. Awesome. Well, thank you so much for your time.

I appreciate it, Beth. And that really was fun. Oh, likewise. Was that good? Okay.