Stem Cells, Proteomics & AI: Are We About to Rewrite Aging? Dr. Adeel Khan | Ep. 173 Transcript

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Intro and Guest Introduction

It was never like my goal to be, hey, I'm going to a celebrity doctor. I mean, from the U S everyone thinks I am because maybe the Kardashians, but my goals was always just to do.

How important is the environment that we're living in? Basically our genes evolve to. In a certain environment and the. Environment we have today is completely mismatched to our jeans and it's only getting worse because a healthy point of view podcast, your top rated show, where we bring experts from all over the world to talk about health, wellness, beauty, and mindset.

We have Dr. Adeel Khan. Dr Adeal is a Canadian board certified physician, regenerative medicine specialist and founder of Eterna Health, trusted by Kim Kardashian, Chris Hemsworth and Tony Robbins.

From stem cells to proteomics and AI, he explains how understanding your biology could help you make smarter decisions about longevity and health. What happens in autoimmune condition is your immune system is becoming dysfunctional and it starts thinking your normal healthy tissue has something wrong with it, so it's starts attacking it.

That's why infusions of exosomes and stem cells can potentially help people with auto immune condition. What is the basic foundation that needs to be widely addressed here in the United States to enhance health and longevity?

Like the single greatest intervention would probably be improving people's metabolic health in America. What is one of the craziest and probably most unethical things that you've seen in the longevity space?

Oh man, unfortunately… Welcome to another episode of a Healthy Point of View podcast, your top rated show, where we bring experts from all over the world to talk about health, wellness, beauty, and mindset.

I'm your host, Sam Tahata. And as usual, we're bringing these experts. Who do we have here today? Today, we're going to go into a whole different topic.

We're gonna go to a topic, were gonna be highlighting some of the 12 hallmarks of aging. Specifically, I wanna talk about stem cell exhaustion. I want to talk information.

And we're gonna talk about another one, which I think I might have butchered a bit. Proteinomics, all right? If I butched it, we'll correct it shortly.

So the guests that we have here today, you guys probably have seen them all over the place. You guys have see them with the who's who, with a lot of professional athletes, the Kardashians, a lotta different people, helping them optimize their health.

Who do we here have today? We have Dr. Adeel Khan. Hey, what's up? That chicken was surprising. Didn't see that one coming. Hey man, we're gonna be talking about some protein today, man.

A little chicken doesn't hurt. Doc, pleasure to have you here on a Healthy Point of View podcast. Yeah, I'm grateful I am here in person with you. All the way from Dubai.

I know, it just worked out. Yeah, man, yeah. So how are things in Dubai? Right now, obviously we got a lot of craziness going on in that area with the war.

The Middle East instability, I think, has unfortunately taken away what Dubai would have been, which I would think

would've become the world leader in longevity, because they're establishing something called the DLA, Dubai Longevity Authority, Which is basically saying, we're gonna be the first city in the World to regulate longevity.

Because Dubai was the first city in the world to regulate crypto. They have something called Vara. And so they're going to adopt a similar framework where they are going put safeguards in place and say, OK, you can do these more cutting edge experimental therapies, but this is what you need to keep track of, and this what's you're allowed to do and what your not allowed do.

Versus right now, longevity, as you know, has become a bit of Wild Wild West where so many people are offering different things and you don't actually know what works and doesn't.

Right, right. That's interesting because you being a part of that, in today's topic we're going to be talking about some of the 12 hallmarks of aging.

When you take a deep dive into the longevity space, you hear different doctors that have different types of specialties in the You hear everything from nutrition, from epigenetics.

You here about stem cells, you hear about inflammation. And all of these things are one out of those 12 widely known hallmarks of aging. Considering these 12 hall marks of ageing, I'm just going to get straight to it.

How do we go ahead and crack the code when it comes to the 12 Hallmarks Of Aging so we can age with good vigor and vitality? Yeah, so I think the best framework to understand the hallmarks is to what is the root of it.

And then from there, what are the downstream effects of that? So the route drivers, because the 12 aren't all as equally as important, meaning there's some that are more important than others.

What are they? Mitochondrial dysfunction, right? Because mitochondria, which are like the batteries inside of your cells, they wear out over time. They're not just wearing out, but they're producing what are called free radicals, and those free radicles damage cell membrane and they damage them DNA, like nuclear DNA and mitochondrial DNA.

So over time, if the DNA is getting damaged, that's like the instructions, right? And those instructions get blurred. And the workers that are supposed to read those structures are like, oh crap, I can't read my instructions properly.

Then they start making mistakes. That's called epigenetic drift. And so that's one of the biggest areas of research, and we'll go into regenerative medicine, focusing on what's called epigenetic reprogramming, which is how do we make a cell remember what its job is?

Hallmarks of Aging and Reprogramming

Because ultimately cells are losing their identity. And this is called the information theory of aging, Which David Sinclair kind of pioneered, But the point is, so mitochondria and this loss of communication, altered intercellular communication is one of the hallmarks of aging.

I would say those are some of more important ones. And then, as you said, inflammation. So there's a technical term for that called SASP. senescence-associated secretory phenotype.

It's a mouthful, but basically just means, you know, that you get these zombie cells that your body can't clear out and they start releasing inflammatory signals, and that kind of creates this feedback loop of chronic inflammation.

That's one of the reasons. There's other reasons your immune system wears out, too. And that's the big driver of inflammation as well, called immunosenescent.

And then stem cell exhaustion, because at the end of the day, if your body can't repair, tissue repair is so important, right? And whose job is it to repair things when things break down?

That's a lot of what stem cells do. And there's only so many of them. Their numbers decrease, but their functionality also decreases. And there's a lot of science into why that happens and how do we restore that is obviously the areas that I'm interested in focusing on.

So those are kind of the main ones. Like the mitochondria, the epigenetic drift, loss of information, and then also the stem cell repair, lacking that stem cells repair.

Stem cell exhaustion and the inflammation. I think those are really the biggest drivers, like oxidative stress, inflammation, stem cell exhaustion. Those are the ones to remember and to keep in mind as to what do we really need to target if we want to slow down the aging process.

Absolutely. And I when we talk about the 12 widely known hallmarks of aging, they all kinda work together in some kind of way. Yeah, exactly. If you take those ones, then from there, they're gonna cause, affect all the other ones.

So, you know, like, there's one called, a macro autophagy, where you lose the autofagies, the repair in the body, gut dysbiosis, that's now a hallmark of aging as well.

And a lot of these are because of root drivers. Right. One of the things that really piqued my interest on what you said is the reprogramming part. And the reason why I say this, and I think anyone else who's listening or viewing the podcast is going to want to know more about the reprogramming part is that right now we always hear about avoidance, avoidence, right?

We understand a lot of people in longevity space understand epigenetics and how your environment, your lifestyle has an effect to it. But we understand, OK, we got to detoxify the body.

We're going into the infrared sauna. we're taking these different binders and all this other stuff. But the reprogramming part is a component that still has to happen.

Right. It can't just be let me take a bunch of antioxidants every single day to try to get rid of these free radicals. So when you talk about repro gramming, let's get a little bit more deep.

Let's unwrap the programming part a bit, if you can. Yeah, so reprogramming first became a topic of research from Japan in 2006 when this guy named Professor Yamanaka discovered, of course he named it after himself as scientists, as a lot of these scientists do, the Yama Naka factors, which are basically these four transcription factors which can kind of press the reset button on the cells.

So they're reprogramming the identity of the cell, so meaning if you had an old cell that was dysfunctional, it could now become like a young cell or what's called a pluripotent stem cell.

And now it's able to do anything. It can turn into anything, and it can be differentiated into different cell lines. So this was called induced pluri-potent-stem cells, IPSCs for short.

That was a big breakthrough. well deservedly won the Nobel Prize because it was a big breakthrough in medicine to know, holy crap, we can take cells that are already differentiated and have become something, and we turn them back into a de-attentified state, basically, a newbie state so to speak, where they can do anything now.

And so as with a lot of things in medicine, there was a super amount of excitement, and everyone thought it was going to cure everything. But clinical translation is always very difficult.

It's been 20 years now, And there hasn't been as much application from those cell lines specifically, but the mechanistic basis of what he discovered is being explored by so many different people.

So Yamanaka, for example, now works with Jeff Bezos at a company called Altos Lab. which just has $3 billion in funding and probably has some sort of immortality potion they're not telling us about, but I don't know.

They're just doing so much work that behind the scenes, we just don' know what they, they haven't announced anything yet, But they have a crazy amount of money and they are focusing on reprogramming.

But there's about eight or nine other companies. One's funded by Sam Altman called RetroSciences. There's one funded Brian Armstrong who's a Coinbase guy.

I think that's called New Life Limit. And then there is like five or six others But they're all focused on the same principle of reprogramming but using different approaches.

The Yamanaka was one approach, but now you can use small molecules or drugs that are being discovered using AI as well for potentially reprograming. Or maybe we can reproground your body using cells, right?

And that's kind of what we focus on. And not to make reprograding sound like this sci-fi thing, because even If you look at it from just a lifestyle perspective, when you sleep properly and when your exercise, those have epigenetic effects, right?

And they are also reprogramming your body. They are making, we know, exercise and strength and VO2 max and having to optimize in terms of grip strength in all those markers, you're gonna live longer and they're going to have a reprograme effect on yourselves.

And so this is just more advanced way to do it once you've mastered those foundational tools. And what we do is we're using signals, and what are those signals?

Those signals are often exosomes or stem cells or secretome which we can get into, which are basically from these regenerative molecules that can help your body to express these Yamanaka factors.

So there's four of them, OSK and CMIC. And the OS K is the most important one, because the CMic one has been linked to tumors or cancer, so you don't necessarily want that to be overexpressed.

But OSk is kind of the hot area of research and reprogramming. I don' know if you've heard of this clinical trial that they're doing for the eye. David Sinclair was talking about it in terms of using gene therapy with this OSK vector to treat neuropathies of the eye to basically help blind people to potentially see again, because he did that in mice.

And how did they do that? In mice, they're using epigenetic reprogramming technology, which is OS K. So, coming back to what stem cells and exosomes do, this is shown in animal models.

They help to increase expression of your body's own OSK. That's that new study that David Sinclair? He's working on right now, yes. He said animal of models, but now they're doing it in humans.

And so it's the first FDA approved or FDA clinical trial on using a gene therapy vector for reprogramming. And it's just in the eye, but eventually the goal with all these other companies that are funded by Sam Altman and Jeff Bezos and all of these people, they're trying to do it for the body and figuring out ways to reboot your body in a sense.

But we can do that to a certain extent already with what we have. The mechanistic basis of how these regenerative therapies work, and this was published last year in an animal model study, was showing how exosomes, for example, they help your body to improve or increase production of OSK.

Instead of taking a gene therapy, you're basically making your whole body make more of this OS K, which then has that reprogramming effect of making yourselves work better and decreasing that epigenetic drift.

Now, I wanna go a little bit deeper into these cells, like for example, what you just mentioned, the exosomes, because I think a lot of the people in the industry, and I speak based off of, you know, having a lotta relationships in industry.

When they hear exasomes they go straight into regenerative medicine, but specifically on people that are having like joint issues, right? Athlete with knee pain or shoulder pain.

But there's obviously a heck of a lot more benefits for your overall health when it comes to actual age management, correct? Yeah, it's the longevity interventions that are really interesting to me.

The reason the orthopedics is because platelet-rich plasma, PRP, was used for that indication. And then when exosomes, MSCs, mesenchymal stem cells, and all these things came along, that was the first thing that people started using it for.

But now we understand that you can do infusions of these therapies, And they can actually have an effect systemically. And as of now, I think they're one of the most potent ways to slow down aging, based off the data that we've published and shown with epigenetic clocks.

And now we're doing a pilot study with the proteomics, which we can talk about, but basically trying to see how much of an effect do these infusions for longevity, these regenerative infusion, have in terms of decreasing the speed of aging or biological age.

And how you measure that is also a debate, right? Because there's all these clocks out there. And honestly, the variability in those clocks is very high, meaning you can use one test and another, and you're going to get two completely different numbers.

Or even if you repeat the same test, you sometimes might get different And so there hasn't been a really great tool. And all these companies are heavily marketing that their biological clocks are accurate.

But the truth is, none of them are. They're far from perfect. Not to say proteomics is perfect, but proteomic is a more accurate way to measure what's happening in your body.

Because proteins are the functional units of what is actually happening. The best way is to understand it is DNA is the blueprint of can happen. Proteins is measurement of is what actually is happening right now.

Okay, okay. So, you know, when we're talking about these exosomes and treating other type of things that people are having chronically within their body, for example, I'd like for you to talk about how it relates to mass cell activation, patients that have autoimmune issues.

I want to go more into the immune side of it. You know, because what I've seen is a lot of doctors utilizing exosomes specifically to enhance the immune system and help fight off some of the things that the patients are having.

Yeah, yeah. We published a case report of one of our patients with rheumatoid arthritis who went into remission with exasomes and stem cells. Wow. And that's usually a lifelong sentence of drugs and biologics.

There's no cure for it, but this is something that seems that we may be able to at least mitigate with these infusions. And so the reason is because it's kind of rebooting your immune system.

So what happens in autoimmune condition is your system is becoming dysfunctional, and it starts thinking your tissues, which are normal healthy tissue, has something wrong with it.

It starts attacking it And why does it start attacking it? The biggest theory is what's called molecular mimicry, which is basically the cells are expressing some sort of antigen or protein that's saying, hey, there's a problem in here, help me.

And is it doing that? One of the leading theories has to do with chronic infections, like intracellular pathogens. A lot of these EBV and other fungus and things like that can hide inside the cell.

So that is the theory on why this happens. And so if you think about it, what these therapies are doing, they're just kind of pressing the reset button on those cells and saying, okay, now instead of behaving this way, go back to behaving that way.

And it's like an immune reset. That's why infusions of exosomes and stem cells can potentially help people with autoimmune condition. But sometimes they can make them worse, and that's where you have to be careful.

And that is where foundational groundwork is very important, meaning there's an order of operations.

Exosomes, Stem Cells, and Autoimmune Health

That's one thing we've learned from experience and working with a lot of complex cases from around the world. You don't just want to throw stem cells on someone until you've optimized some of the basics, looked at their gut health.

hormones, you know, we use functional genomics as well, and then now with the proteomics and try to really combine and make a step-by-step program and be like, okay, now you're ready for the regenerative therapies.

And then also, not to get too technical, but the way you measure the quality of exosomes, that's also an issue, right? Some company would have been like, I have 4 trillion exosomes.

Our exoesomes are 10 trillion or 100 billion or whatever. They use all these numbers. It's like how are you validating that? They used something called NTA, which is a type of using light particles to measure how many particles are actually in the exasomes, but that's not a perfectly accurate tool.

You don't always know what's in the product you're using. And that's the same issue with peptide world, right? And I think that that why we need more third-party testing and independent verification.

So if you are going to use those products that you ask for these type of things. Absolutely. This is all really, really good information, especially for the doctors and other medical providers that are tuning into the podcast.

These are the details that people have to pay attention to. Now, when we're treating our patients in the world of functional medicine or precision medicine, whatever we want to call it here, One of the things that's happening lately is that the world of functional medicine, a lot of these alternative treatments get a lots of bad press.

Why is this? Well, first of all, there's no research. There's not evidence behind it. So, I want you to talk a bit about, and this is one thing that I wanna put some emphasis on, especially for other providers that are out there, There's always been a lot of talk of, oh, it's all anecdotical data.

And for me, I keep on saying, being in the functional medicine space, It's not just anecdotal data, right? There is more to that. We do a lots of NF1 data So, you know, that NF1 data actually allows us to really measure that individual patient over time, specific to the different biomarkers and other different biometrics that we're utilizing throughout their journey.

So I want you to talk more of some of the NF 1 data that you guys are using that. You've seen with your patients. And why is it important to have that type of data?

Yeah, this is really the debate about clinical trial evidence-based medicine, EBM, versus what's called RWE, real-world evidence. And so it's a topic that the FDA even went into, I think it was like five, six years ago, where they said, OK, we'll start accepting RWA as an alternative.

But then they never really did. Whereas countries like Japan do. So, for example, in Japan, when it comes to regenerative medicine, if you've shown safety in a phase one trial, which is like the initial trial to show safety and he was not necessarily establishing like effectiveness or efficacy.

Then you're able to go direct to consumers and offer it in clinics, but then they can look at real-world evidence now and they start monitoring for efficacy in the real world and obviously for adverse events and things like that.

But then this gives you a direct path to get it to the clinic and get to people and potentially help a lot of people. versus going through this arduous path that they've created in the US where you have to spend hundreds of millions of dollars to get approval from the FDA, which only gigantic drug companies can do.

So that's problem number one of this whole evidence-based medicine world that we've create is that you're limiting it to very specific companies, essentially, giant entities that can go through that path.

Even if you had a breakthrough product that could potentially help a lot of people, stem cell therapies or exosomes, it's very difficult to get the FDA approval and get that EBM stamp.

And so that's why, you know, they're not approved, right? These therapies are not FDA approved but they are allowed to be done in states like Florida because they've realized that you know what these things are safe they can potentially help a lot of people so we're going to allow them under certain parameters and so it's now their state legislature that is contradictory to the federal government basically right and I think that just speaks to the shift that's happening at that level, but also consumer demand, right?

People are demanding that, okay, fine, maybe there isn't as much evidence as there is for these strong drugs that have, you know, thousands of patients with large randomized control trials.

But at the same time, it doesn't have those type of risks either, right? A lot of those drugs have so many risks with them. A of these therapies we know have established safety, at least, because they've been done not only thousands or millions of times in real world, but a lot them have clinical trial data for phase one, doing safety.

So it's like, if at we at know it safe, then why not let people try those things, and I think what you said is also very important, which is a personalization.

when it comes to these large clinical trials, they're trying to generalize across the population. And even if you look at drugs like statins, which are to lower cholesterol, They don't work for everyone.

There's something called number needed to treat. I think for statin, I can't remember the exact number, but it's one in 70 or one 80, maybe even lower, Which means basically 80 people have to take that drug to get the mortality benefit of reducing the risk of them having a heart attack or dying premature of cardiovascular disease.

So it's not like it is working for every single person who takes it. You know what I mean? We live in such a world where there are so many different data points that are readily available instantaneously, right?

I wear an oar ring, right? You got the whoop, you got continuous glucose monitors. There's many other things that we can also attach as a wearable to our patients where we could monitor a lot of this data live, and really kind of see how their body's performing and what the potential outcome is with whatever treatments we're doing.

So, do you feel that a lot of the ways that we run research right now or evaluate clinical treatments is a little bit outdated? For cutting edge regenerative therapies, it's very outdated.

It's antiquated and it doesn't work. And it kind of unfair the standard that they set. Do you believe that longevity science is 25 years ahead of actual medical practice?

15 to 20 years. But that's a common number based off the research that has been done, which is called the clinical translation gap. Which is that there can be these findings in the scientific literature which are very promising, mechanistic, but then also in humans, and it takes 15-20 years for the average doctor to put it into practice, even though the findings are there.

And now with AI and with the acceleration of research, that number is probably just going to increase. And so now

you have this outdated regulatory body that can't possibly keep up with the innovation that's happening, but then the gap just becomes wider and wider.

We've got to put emphasis on that so people understand what we're talking about, because that is important. You have science that has really great things that are showing strong efficacy, right?

But by the time it goes through this process, this approval, these different governing bodies, and then all of a sudden it gets actually adopted into an actual curriculum, then it's actually taught to potential medical providers that are going through college, postgraduate school, et cetera.

And then they actually go off to practice medicine and implement it within the practice. That's a huge gap. You know it and then you're thinking about a lot of your doctors that are out there Currently, right?

Let's say you got a doctor that he's been your family practice medicine doctor for the last 30 years Yeah, you know once the time he wants to go get educated on some of the new stuff That isn't pharmacy funded right because I mean most of conferences that go to our pharmaceutical sponsored, exactly and So so think about that and and if you're not really getting up to date with a lot of the new science Yeah, and what what your practice the way you are practicing medicine is based off of 30 years ago when you went to medical school Yeah right that all of that information that you were learning in medical School, which was 30, years, ago, when You graduated was something that was was researched 20 years before that did your practicing, medicine like 50 years.

Literally. And that's the sad truth is, and this was again before AI, so the numbers probably have changed now, but they used to say the research was suggestive that within five years of graduating med school, something around at least 50% of what you learn will be wrong or outdated.

That's crazy. So now that number has probably accelerated with everything going on. And so I find it amusing almost that med students today are learning similar things to what I learn.

Because I see it. They're still not learning about the hallmarks of aging and how they tie into the mechanistic basis and regenerative medicine and all these kind of new way of looking at the body, right?

Systems biology approach, which functional medicine is another term for it, but the scientific Literature describes as systems biology, which is basically our body is this integrated system.

It's not these fragmented kind of specialist by body part system that we set up. And it's this interconnected whole, right? You know, interesting, like what you just mentioned about, you know things being so like fragmented, right?

Just the other day, and I can't comment too much on it, but I was reading, the big charts that you have. You've got the metabolic pathways, then you've have the cellular and molecular processes, so those two posters for years, people would know them very well.

They stop updating them. Many years ago, they stopped updating them. I'm actually curious to know why they stop updating. Is it that research is advancing so quickly with what's happening in these different processes of the cellular and molecular processes that they're not updating or what?

I am not too sure. I think it's difficult to keep up with all the, you know, they're still discovering new cells in the immune system that we didn't know existed, right?

So there's so much we don't about the body and the granularity of what we're able to see now is so different than it was even five years ago. There's something called single cell RNA sequencing and spatial transcriptomics, which are kind of like looking at individual cell profiles and gene expression profile of those individual cells.

So for example, if we take the cartilage cells in your knee, we used to just think that's one type of cartilages cells, but it turns out there's different subpopulations.

It's not all one kind of cell. And that was a big discovery with the stem cell work that we do too.

Evidence, Regulation, and Real-World Data

When you take stem cells from like fat or bone marrow or umbilical cord, We thought it was just one sort of stem-cell source, which was mesenchymal stemcells.

And it turns out there's different subpopulations. So there is a subset. And so that was the Muse discovery, the subset that turns to be probably the most useful because they're pluripotent and they can survive in harsh environments.

But the point is the resolution of what we can see cells and how they function. Way advanced than what it was a decade ago and is only getting more and more advanced.

So that's why I think it's difficult For anyone to keep up to be honest, and I try my best and i'm in this and reading all the time, you know, yeah So alright, so when we talk about longevity I want you to comment on what is the basic foundation here in the U. S., right?

What is basic the foundation that needs to be addressed, widely addressed here the United States to enhance health and longevity? Well, most people don't have the foundational tools in place.

So people like the single greatest intervention would probably be improving people's metabolic health in America, especially because that's where, you know, diabetes, obesity and diabetes and metabolic syndrome and insulin resistance is a huge problem.

And those things cause so many downstream effects to your health. either subsidizing access to gym and healthy foods, or even GLPs. I think they can be very useful, too, in the right context.

And those type of things should be accessible and ubiquitous, basically. Then the other big one is sleep architecture. Everyone should measuring their sleep to understand that, okay, I'm not getting the optimal sleep or my sleep pattern isn't where it should.

Because that's the single greatest thing you can do for your longevity. And even if you eat well and you exercise and do all these things, but you're not sleeping well, that is going to bring you down.

Awesome, so foundation is pretty straightforward, kind of like what I always tell people, nutrition, exercise, sleep. That's a foundation. Now, take it at a step above.

There's lot of talk right now politically, right, there's the Maha movement, Make America Healthy Again, and we hear about a lot about the toxic environment, the toxins in our food, like the different dyes in the food that the children are exposed to all the time.

The glyphosate all of these different toxins that have a direct effect in your body and How your epigenetics, you know how your genes express themselves, right?

So how important is the environment that we're living in? So there's something called evolutionary mismatch, which is basically our genes evolve to be in a certain environment, and the environment we have today is completely mismatched to our jeans.

And it's only getting worse with modern environment because We're not meant to sit all day. We are not to be in these fluorescent lights. Were not mean to eat processed foods, right?

We evolved in a certain environment, which was the ancestral primal environment. And that has those foundational tools of exposing yourself to light, exercising, moving your body, going hunting, those type of things, and eating minimally processed food.

So the environment now that we have, because this environmental mismatch is only getting worse because of, like you said, toxins as well. That's another factor.

Like microplastics and all these other things that were exposed to on a daily basis. How does your body deal with that? Does your have the resiliency to?

A lot of people can, right? Like, not everyone needs to do detox and not every one needs do these things, but a lot people do. And I think the only way to know is trying to, like, measure things.

Right? You measure your heavy metals, you measure the toxins, You can do that stuff now, and then you can even measure microplastics. And then you can decide if you should be doing these therapies that can help to lower it.

And there are simple interventions. There's this one product called Zeolite. I don't know if we've heard of it, it's really interesting. It's a volcanic ash derivative, and it basically helps to bind toxins and just help release them in your stool.

toxins and those simple things. But then there are more advanced therapies, right? Like Inuceresis, which is in Europe, Toxopheresis. These are plasma filtration technologies.

Actually, I think I reached out to you not too long ago about that, because I saw it and I actually sent it to my business partner, Dr. Christopher Davis, who's an interventional cardiologist by trade.

By training. And you know, when I sent it to him, he says, man, I love this technology because this can really help on the cardiology side. Yes. Better than like EBO2.

Exactly. Or the plasmapheresis, the TPE. Yeah. So can you talk a little bit about that? Yeah, so the problem in America with blood cleaning technology is everyone's promoting TPe, therapeutic plasma exchange.

And that was designed for ICU patients in the critical care unit for very specific indications. So there are some risks with it, number one. And number two, it's not selective.

Meaning it is removing everything from your plasma, including some of the good stuff like proteins like albumin, which then you have to add back in and then dilute it with saline.

Then it also removing antibodies, your glucose. You may not feel so good acutely and your body has to rebalance. So, selective filtration means that there's a specific filter that traps the bad stuff and leaves the good stuff.

And that's just not available in the U. S. yet. Why? Because the FDA makes it very difficult to get approved for these things. Even TPE is not approved, but again, these longevity clinics just offer it and they mislead people because it's approved one indication in a hospital and then they're like, oh yeah, it is FDA approved.

It's not FDA approved. You're lying to people, and you're using it as a marketing tool to get people to do this device that's now proven or effective or even maybe dangerous because it has some risks.

So it's very misleading what these longevity clinics are doing. And then if you want to it the right way, then you use toxophoresis, for example, which has been studied in Germany for over a decade.

and they have very specific filters. So your friend who's a cardiologist probably got interested in it because there was a filter specifically for lipids.

Right. It can trap lipoprotein A and LDL, which is a bad cholesterol, into this filter and then return your blood back to you. Now, obviously, your body can remake those things and levels can go back up, but it can be one of those thing, if you have access to it on a regular basis, it could keep those levels low.

And so it be a way to treat, especially lipo protein A, that's the genetic thing. Yeah, like I have that. I personally

have it. Yeah so that's actually approved.

It's an approved indication for that and so you can get access to that in Europe and I think it is available in the US under that specific indication.

Really? Yeah. So you could get the technology here for that? For lipoprotein A, specifically. All right. Maybe I don't have to get it. Inusirisus is just another company.

These are brand names. The Toxivrisis is one. And Inuiserisis another is company, and they've also been doing it for quite a while using their filtration technology.

There's no head-to-head trials comparing one being better to the other. I personally think that the Toxo is better in terms of for selective problems, like lipids and things like that.

But the in use, in uses can also be useful for autoimmune conditions and removing auto, you know, antibody complexes, but so can the toxo. So I would say those two are very on equal footing.

I don't, I wouldn't say one's better than the other. And you've seen tremendous change. For autoimmune patients, one of the things we often do for them is we do that first, we've cleaned them, and we're preparing their soil, as we like to say.

So that's part of our protocol. And then we are putting in the stem cells. That can have a resetting or rebooting effect on their immune system. And at that point it's even more exactly because you're powerful more cells are gonna be less distracted, right?

All these toxins and other things the cells comb in on wherever there's information. Yeah. So, okay Okay, that's good. I I think that a great segue to go into that.

Um this next topic about When you're working with a patient, or let's say I am a patients listening to this podcast, and thinking about doing some of these type of alternative treatments that are out there, they might have a longevity clinic somewhere in Chicago, New York, LA.

Let's talk about the importance of preparing the body before doing these types of interventions that we're talking about. Yeah, and this stuff comes back to almost like health coaching.

You know, where it's like those foundational lifestyle things we talked about, but then an extra layer on top of that is now supplements, supplementation, personalized for you.

And doing it based off your biology, based on what your body needs. Instead of just being like, okay, I'm just going to take this and see what happens.

And so that's where precision medicine, as we were talking about, is really precision. Medicine is using your genomics, your genetics, which are individualized for you, and then that gives you an idea of what can happen.

And then now we can use proteomics. What's actually happening? And we combine them for making a personalized plan for, not only for supplements, but then also for peptides, too.

Because peptide, hot of a topic as they are, Again, there's not a lot of human clinical trial data. A lot is just animals and experimentation, essentially, of people just being like, yeah, these didn't work.

And so having some sort of measurement tool or indication of what may work for you based off your biology is what these genomics and proteomics can tell us.

So now there is geneticists talking about, OK, if you want to do peptides, let's do your genetics first and figure out which peptide are going to be potentially better for.

All right, so let's geek out man proteomics. Yeah Give me the 411, you know the the basics whereas we're going to talk about proteomic 101 so people can really understand What does this even mean?

Right, so if you imagine your body as a car, the exhaust pipe of where things come out, that's metabolomics, right?

Metabolic Health and Environmental Mismatch

Metabolomics is a metabolism byproduct of cellular metabolism, which happens in the mitochondria, And then the engine that it's running on, that's the proteins.

So proteomics is just measuring what is actually happening in the engines and taking a look under the hood, so to speak. But the layer of granularity that we can get now from it is what makes it a lot more exciting.

Proteomics has been around in research for decades. But it was a research tool because, number one, it's just too expensive. It would cost thousands of dollars or tens of thousands to measure.

And then the other thing was there were so many, there's thousands, of proteins. So we didn't know which ones were the best to measures. There's these biobanks, something called UK Biobank, Chinese Kaduri Biubank and then there are these private biubanks where they have all this data where the measure people's proteins and they're able to validate across these different datasets to say, okay, these proteomic signatures link to this problem.

So now we're able to, say okay we measured a thousand proteins in your body and we found that this protein is low, this proteins high, and this is what this means.

And this is why it's happening, and this what we can do about it. So that's the big difference, because let's say you do a blood test. There's so many companies out there, right?

So they offer these diagnostic panels and being like, OK, you can measure 200 biomarkers at once. But it doesn't give you a lot of actionability, right?

It tells you, okay, this is low, and this high, but it does not tell you why. It does tell exactly what you can do about it. That's the difference between proteomics and just like a standard blood test.

Plus, you're getting way more. Even if you do 200 biomarkers, it's going to be a thousand biomarks at once. And where do you go to check proteomics? Is that something that's readily available?

So there's two companies. There's one called SomaScan or SOMA Logic. And that one is a bit pricier, though. That one's like $5,000. Wow. So most people aren't going to spend $500 on a test, right?

Yeah, yeah. But then there's another company called Sedona Health, which is a group out of Princeton, basically, that they came up with this more affordable version, Which is about $500. And they're launching publicly early next year.

It's available to patients through select clinics right now. So we're obviously working with them. We're offering it for our patients as a tool to measure before and after interventions of longevity, but then also as diagnostic tool.

Because it also helps to predict risk. As we were talking about earlier, loss of proteostasis, which is protein homeostases. Homeostase just means balance, right?

Your proteins, over time, get misfolded, and then your body's supposed to clear them out. But over the time your can't do that as well. And so one of the classic examples of this is Alzheimer's.

You get the tau, tau proteins. So you get these plaques in your brain. That's a protein, but why can your not clear that out? And we can measure, before that happens, way before it happens.

Because by the time you get Alzheimer's, there's been a disease process of estimated at least 20 years that's going on. It's not like you just woke up one day and Alzheimer has happened.

There was something going in the cells. And we can measure what's happening in the cells by looking at these proteins. There's one called P-tau, which has been approved now as a blood test, as protein, but there's potentially one even better.

But the beauty of Sedona Health and these proteomics platforms is they can just add in that, they could just license out the technology of that protein and put it into their panel.

So now you have a neurodegenerative risk profile that can predict if you're at increased risk of Alzheimer's 10, 20 years before you get it. Would you recommend doing this test as baseline for people?

If you were only able to afford a single blood test at this point in time, this would be the one I would recommend. Really? Because of the granularity and the detail that you can get in it.

Let me give you another example. If you're a female, middle-aged, maybe they'll check your hormones, magnesium, thyroid, some basic vitamins, things like that.

And then if things come back normal, then it's like, OK, well, try some magnesium and melatonin. Come back in three months. We'll see how it goes. It's a very generic type of approach.

Versus, if you use something like proteomics, you're able to see the underlying pathways. So meaning, when you have sleep dysfunction, there's about six biological pathways linked to it.

Inflammation, oxidative stress, cortisol dysregulation, vascular and metabolic systems. These things are all potentially the root mechanistic cause as to why you can't sleep.

And the proteomics can give you that granularity, so then you can make an intervention or a recommendation based off the underlying mechanism instead of just being like, try this and see what happens.

So that's the difference between where we're at now with the science. And now you see why I'm so excited about proteomic because it can basically become the sensor layer that we never had before.

That's true precision. I mean, that's what it is. When we talk about, in the world of functional medicine, right now you have a lot of different specialty tests, micronutrient testing, epigenetic testing.

Toxin testing and all of these different types of tests. People run, how you said earlier, hundreds of biomarkers. But now when you're going into detail like this, now it's really going to that real precision, wow.

That is amazing, man. Yeah, it's really exciting. Another example, just to really take this home, is let's say how poor traditional blood work really is, if you get your cortisol level done, you'll get a morning cortisol.

Like this is traditional medicine, I'm not talking about functional medicine. You just get an AM cortisol and let say it is high. But you have no idea why it's high.

It could be because the signal from the brain is too strong. The enzyme in the peripheral tissue is overly converting it aggressively. Or it could the whole access is under chronic load.

And so the proteomics can look into all those different proteins that are linked to those three different things. So there are very specific proteins, like the one from the brain is called POMC.

The one in the enzyme is HSD11B1. These are specific cytokines or proteins that they can look at. But then that can give you that layer of granularity again.

And then linking it, the beauty is because this is built on the biological AI, which means then the AI is able to interpret it and tell you what that pattern means, that proteomic signature means.

deal with this high-dimensional data, right? High- dimensional data just means like it's too much for a single human to process it, yeah. But if you're a regular doctor, I mean maybe you can do 40, 50 blood eye markers, maybe 100, 200 if your really good I guess, but you cant do like a thousand.

Yeah, but with the power of AI, where you can just take a lot of these different results, right, that come in from these testing, and then put it into a system, understanding the type of treatments and interventions that we have, I mean, in the next five years, we could get very far with this stuff, man.

Well, this is where the whole digital twin world is going to come out, where it's like you have this tool that has all your data from these different Omics technologies and all this granularity, and then you're able to really figure out what works best for you.

Digital twin. Okay, man, break that down even further so people can understand. What is a digital Twin? So imagine a digital twin would basically be all the cutting edge measurement tools of your body and what's actually happening right now.

So then you can, in theory, you could use it as a model to then test out, like using AI, different drugs or different longevity interventions to see what would happen.

And then obviously when you do it in the real world, now you have this platform where you can input that back in, and then you track over time if this is right for your body.

So it becomes, it's a really exciting kind of world we're going into. And I think. That's crazy, you got me thinking. Because especially if you start that digital twin at a very young age.

Exactly. The more information you feed it, the more accurate it is. Yeah, exactly. That's crazy. Our kids are lucky. Yeah, if we started doing these things, you know.

Listen, I mean, doc, You are a very smart doctor, doctors are smart, but you're extra smart. I'm going to just say that you are extra Do you ever worry about some of these bigger bodies that are out there with what you're doing?

Because you know, you are not one of those doctors that do precision medicine that hides it, right? You speak publicly. You're coming on a podcast. Um, You know you, are active online.

Do ever get scared of a lot of this bigger body, the big pharma companies, big food companies coming at you? Yes. And there has been some of that, I think, with some the online rhetoric or rumors or things that have been, and I a lot of those are funded or sponsored by potentially pharmaceutical companies or other people who just may be in that world, fight you down.

But I think we're at a point, we are at an inflection point where people deserve better and there's a cultural shift happening. So I there is enough of us who together can be, it's more like a movement, right?

So you're not just on your own. If you went back 10 years ago, you can't be as loud. Right now, with things like the Maha movement in place, so many people are so health conscientious as well that they don't trust the current system that you could be a heck of a lot louder.

Yeah, exactly. But if I disappear, make sure you… I am not suicidal, man. That's what I always tell people. I'm not suicide. Yeah, it's funny, you know, we talk about that, man.

Like, my parents, they appreciate the things that I do and how involved I am in the longevity space. And I started in defunctional medicine space, I starting on my days off from the fire department when I was 20 years old.

Sorry, 19 years, which is 20 year ago, because I'm 39. So, I was in the functional medicine space with Dr. Robert Willis was a world renowned he was formerly a heart surgeon who left and went into the longevity space.

And a lot of the stuff that he wasn't talking about. Finally, it's come to light now, you know, unfortunately he passed away right before covert at the age of 80. But you gotta think, man, going back 20 years ago, talking about all of this stuff, it was, I'd go to some of the conferences like the A4M and stuff and it wasn't like today, you get like 100, 200 doctors maybe, now you'd get thousands of doctors that are showing up.

So it's just a whole different world. But yeah, my parents, they get a little bit scared. They see me every month in Washington D. C. with R. F. K. Jr., Dr.

Oz and all this, because I'm part of And, you know, they're just like, be careful, this, that.

Blood Filtration and Preparing the Body

But, me truly, it's like I do want to see the change in medicine. I want see that change and the course of medicine specifically because my years working in the fire department, emergency medicine, I was the guy they were calling every single time they got sick from the acute illness all the way throughout that journey until they died, right?

Because these patients were And then all I saw was more medications being prescribed to them, right? Them seeing multiple doctors that are not communicating to each other.

No one's addressing any of the stuff we talked about on today's podcast. None of that stuff has been addressed. So, think about it. Me working on my days off from the fire department with Dr.

Willix, where I'm seeing this functional medicine doctor take end-stage page patients and reverse disease while I'm in the fire department, seeing people with acute illnesses and then maybe part of their journey until they die, you know, seen both sides of it.

I got to a certain point where I was just like, man, I became this so-called quote unquote hero. And that's far from what I've doing. 90 percent of the 911 calls are these medical calls that are a product to the problem.

Yeah. You know? So that why then I ended up leaving the Fire Department after 12 years. Well, it becomes a revolving door, right? That's exactly what it was.

What plagues our medical system is what's called acute exasperations of chronic disease. So for example, if you have COPD, like lung disease from smoking or emphysema, and it gets flared up, you end up short of breath and you go to the hospital.

Or if your have congestive heart failure, because you've had years of your heart not functioning optimally and your just being managed medically, then it get flered up and then you ended up in the A lot of these people, like you said, are elderly, and there's no root cause approach to it.

There isn't. But I think now with AI and with where we're headed, the preventative, hopefully, approach will take off because it's going to become so accessible that everyone can measure things ahead of time.

Do you think that the hospitals are actually going start adapting to more of the prevention? I don't see it happening. I'll say how it is. When I worked at the fire department as a firefighter paramedic, they launched a new program called Community Paramedics.

And it was specifically for firefighting parametics on their days off. They could get a part-time job working for the hospital. as a paramedic was to go visit these patients, right, that are Medicare, Medicaid, go to their homes, take their blood pressure, do an EKG, you know, report them to the hospital.

But the main focus was make sure that if it's 30 days since the last time they were at the They straight up you

notice it. So for me, it was just like oh shit, man This is a money game business, you know, and at the point in time that they can bill medicare medicaid then yeah, oh, You know if there's anything and they were very The during that time at point of time you talk I talked to some of the guys that were actually doing that work I was like dude at The point at time That they could come back to the hospital and spend ten days in a bed and medic are medicated pays out the vitals and everything else that I'm taking on that patient, they were looking at them a little bit extra.

Oh yeah, you know what, something seems a bit off. They need to come to the hospital. So for me it's like, do they really want people to be well? Is well care ever going to actually exist?

It's a system that feeds itself. And there's some good books on this topic. There's one I've read recently called Malignant, which is about cancer, and one called Brigham Mortis, about the system in general.

Unfortunately, the way everything's designed, I don't think the change will be systematic from a regulatory level. I think it's going to be like a grassroots movement.

It's a whole architectural, you have to rebuild the architectural plan of it. I mean, if you just hit the nail on the head, it's not, we're not in a broken medical system.

We're in, the system is working exactly the way it was designed to work. Yeah, but it kind of reminds, I have a lot of friends in crypto and sometimes, and I feel like I attract a lotta those patients or clients because they understand that, okay, yeah, that treatments we are doing are labeled as experimental or not FDA approved, because they went through the same thing where crypto was banned by governments and at one point it was illegal and they now look at it, right?

It's a similar thing. I think the regulatory bodies that have been created can't keep up with what's happening in medicine. So when they don't understand it they just say, no, it's bad or don' do that.

And then one day everyone will be doing it. Wow. Doc, let me ask you this man. You've been in the longevity space long enough. What is one of the craziest and probably most unethical things that you've seen in a longevity Oh man.

Unfortunately, and I guess it's probably not unique to the longevity space, but I think anywhere where there's money to be made, people sometimes put their morals in their back pocket and just think about how do I maximize this profit or how to make the most out of this person.

And I think that's one of the things that has helped me to stay where I am and working with the Tony Robbins of all these VVIP sort of people is because I always try to go by integrity and trust and transparency.

Meaning, if I was wrong about something, I'll admit it, and because things change in medicine and you're not always going to be right. And then the other thing is, too, is telling people what you do know and what don't know, and understanding how to navigate to other experts.

The problem is with longevity, a lot of these influencers and speakers, they want to be known as experts for everything. And they dont want defer to people.

So for me, for example, when it comes to peptides, I have people like Chris Duffin, whos been doing it for 20, 25 years and is amazing at it. And he understands more about it than I ever will.

So I don't need to pretend like I'm a peptide expert. I have someone who can do a better job than me. so I refer to him as opposed to me pretending like there's all these doctors being like, I am a Peptide Expert.

You've been doing it two years. It's like you don' know anything. Like you've taken a course and have some made up certification. And so there is not enough clinical trial data for you to follow any sort of guidelines.

you're just making these claims. and I think that's where the integrity of longevity really falls. And it's misleading to

consumers because they can't discern.

And then for outside doctors who are more like standard of care medicine, they think it is all BS because you have all these bad players who making claims and saying things that just aren't true.

Sometimes maybe it isn't out of malicious, maybe sometimes it just ignorant and they don't know. But I think there is a lot of people who is smart and still purposely mislead people because know they could make money.

Yeah, yeah. I do think that the functional medicine industry needs to create a stronger ecosystem with medical providers. And I'm specifically kind of like what you said, that doctors need to have their specialty in the longevity space.

Like Dr. Davis, my partner, he's an interventional cardiologist by training. He still keeps a hyper focus as a cardiologists, even though he is a functional medicines doctor.

You should have the urologist who's in the functional medicine space, the dermatologist who is in functional medical space. The GI doctor specializing in gut health in a longevity space and if we could create that type of ecosystem where you have specialty doctors that speak the same language, then I think They did a, you know, who did like pretty good job with that was integrative medicine, which is Dr.

Andrew Weil. He was like a pioneer in that field and he created these fellowships for different specialists. And I think that's the way we need to go with the longevity medicine where you have like, a fellowship training for the different specialist so they get specific training on their domain.

Integrative medicine is basically just combining allopathic, which is traditional medicine, with naturopathic. It's like understanding supplements and all that stuff.

But the problem is a lot of providers, they want to treat the whole patient. And they wanna be an expert in every system, every single body system. which I think you should have a good…

You should understand that, but let somebody who goes deep into that cellular process, the molecular process in that particular system really kind of take control or work with them.

And that's one of the things I've really enjoyed is like the geneticist we worked with, Dr. Mansoor, he's a world-renowned clinical geneticists. I'm not gonna pretend like I can interpret a genetic report better than he can, you know what I mean?

But it's like finding the right experts and being able to create a team or experts that you can refer to, that your trust, and then you could do your aspect of it, but then they can do what they're best at as well.

And patients, you know, they respect that type of honesty ultimately, I've been asking what's one of those craziest, most ethical things that people are seeing in the longevity space.

The reason why I ask that, man, just a month ago I was in D. C. and I met an investigative journalist by the name of Jan. He's actually done a lot of research and has gone abroad.

you know, really done that investigative journalist thing, and he was talking about the longevity space in some of these other countries. It consists of organ harvesting, where they got farms of, like, millions of people on the ground, you they match up their right genetics and everything, they actually grab the body and sell the organs for, in the black market.

Crazy. You think that's true?

Proteomics, AI, and Digital Twins

I could see that happening, unfortunately. I've heard of rumors like that in China, specifically. But when he told me, it was like, first time meeting him, when I was up there, someone introduced me to him.

And I said, oh, what are you doing? He says, I'm in the longevity space. It's like oh do you want to know something crazy about the long jeopardy space?

And man, he started saying that to me. Everything just zoned out. What is this guy talking about right now? When I talk about longevity medicine, it is not about trapping kids under the ground.

But when you start thinking about it, some people that's probably, hey, you know what, my heart's failing, I need a new heart. That's kind of crazy. No, exactly.

I mean, that why I've heard of things like that in those developing countries. And I wouldn't be surprised if that was true. Luckily, I don't think we have that problem on this side of the world.

We have a problem more with what we would call grifters or people who purposely, they know better, but they still mislead people because they want to maximize their profit.

And there's a lot of that, and I think in longevity, unfortunately. Absolutely. Man. So, you know, as we, um, start getting to the end of the podcast, man, we talked to quite a bit about these different things that proteo proteomics, right?

Am I saying it right. Um, what is something that really excites you, in the next five years when it comes to longevity space? I think the platform that Sedona Health, but there's other companies too that are building in terms of having an accurate measurement tool for determining if the longevity interventions you're doing are actually working.

Because the beauty of what they have is that proteomics can change over weeks to months. So let's say you add in cold plunges, or you added sauna, red light therapy, hyperbaric, like these tools, the PMF mats, all these things that people are starting to use.

How do you actually know if it's working or what it is doing for your biology? And so now we have an accurate yardstick. And then they're only going to build upon that with they are going use lipidomics.

They're going have RNA sequencing. So to me, in the next five years, I think what they'll have and other companies will probably have this too, is have like this large data set and have your digital twin and now you're able to use that as a platform to personalize everything longevity for you without even maybe having even a doctor because the AI can do it for.

That's amazing. So to me that's the most exciting and that is going to happen I think in the next five years. I mean if Sedona Health doesn't do, someone else is gonna do.

There's a lot of people working on it. You know, I want the viewers and listeners to get to know you a little bit, so I got these cool conversation cards from the diary of a CEO, Stephen Burlett.

So you'll go ahead and take that sleeve off of it, grab two random cards for the middle, anywhere, you can shuffle them if you want. You'll read what's on the card and you will answer it.

Cool. Stephen's a smart guy. Great idea. All right. So, when you are near the end of your life and looking back over it, what will you be proudest of and what you will regret the most?

It's interesting, I've actually thought about that quite a bit. There's this palliative care nurse who obviously worked with people who were under deathbeds and she wrote a book about what do people regret most.

And there's a top five list. One of them was not keeping in touch with your friends. And I think that's one of the things I would regret, and I sometimes do still, when you're building a business and you are doing all these things

and traveling, I then keeping those relationships and social connection is actually very important for longevity, right?

Loneliness is a bigger predictor of health issues than smoking, for example. Community. Yeah, exactly. So for me, I'm fortunate I have a strong family unit and lots of close friends and cousins and stuff like that.

And I think that's one of the things I sometimes regret. But I try my best to keep on that, and I in terms of what I would be the proudest, is teaching the next generation, which is my kids, but also other people, that You stand up for something you believe in, even if there are people who are going to doubt you.

There's a saying, a vision of one person is stronger than the army of doubters. So that's something I try to live by. And as I am someone who's doing things that are new, and because I attract a lot of attention with these celebrities, people come after you sometimes.

And so I think it's just remembering your North Star and why you're doing this and ultimately being proud of what you've done, regardless of people say.

I love that. Before you read the next one, what do you think has brought you so many of these celebrities and these very affluent individuals to your practice?

I think about that a lot, because it was never, like, my goal to be, A, I'm going to a celebrity doctor, or known as that. That was something I couldn't…

I am a Canadian, yeah, not even from the U. S. Everyone thinks I because I treat the Kardashians. But it, it never was my gold. My goal was always just to do what I loved and what believed in.

And a of it actually spurred from wanting to help my mom, help own family members who had chronic diseases, and looking at them and being like there has to better way than just medications.

And that's what got me into integrative and alternative medicine in the first place, and then just pursuing that wholeheartedly. And I think when you are truly passionate about something, it reflects, your energy reflects it.

I don't know if you believe in like manifestation stuff and all that, but I do believe there is a certain… Law of Attraction type of stuff, or magnetism, where you attract like-minded people to your life.

I agree, man. 100%. Tony Robbins, for example, and his wife, Sage, they're just such good-hearted people. And even the Peterson, Jordan Peterson and their family, all these…

People I've met they're all very similar they end up being very you know when you meet them They're not what you read online or whatever You know what I mean like they actually they want to do good things they wanted to have an impact on the world And that's the same way I am so I just feel like when your like that and that your core DNA you end of attracting people like I agree.

I love that What else you got what's other the second one was just a how it works, so it shows the wrong card there Directions for the back yeah All right, let's see.

This is pretty cool. What is your favorite sound? Hold on, what? Your favorite sounds? Okay. Well, this is actually a good way to talk about this company called Resonate.

It uses personalized frequencies for your biology. So you've probably heard of biorenal beats and things like that, right? A brain tap utilizes it. Brain tap, yeah, exactly.

There's one called Brain Patch, I think, too. And this, as opposed to being a program that's a generic one, they use your genomics and then to just a saliva test, and they create personalized frequency for you.

that can help with sleep, mood, focus. And it can be transposed onto your favorite playlist. So let's say Cole plays your favourite artist. They can put it onto all their songs, and you won't even know the frequency's there.

But then it has an effect on yourselves, which are measurable. And they've had some really interesting anecdotes of, like, improving hormones, helping, you know, people even, there's case reports with autism because behavioral issues, things like that.

It's so interesting what they're able to do. And I personally use it for myself to help with sleep, and my daughter loves it, for her, emotions. That's awesome, man.

So it's called Resonate. You know, so I haven't done that one, but a buddy of mine that I've known for years from my early 20s, he became a shaman and he does a lot of energy medicine stuff.

And out of his facility in Boca Raton, what they do is they pluck your hair and they put it through a system, right? And then they have the ability to understand, based off frequency, how your mitochondrial health, everything is through the hair.

Is it by resonance? I think so I don't I can't speak to it that scientifically but he put me to his yeah, you got to come by you gotta get on the bed you Got to get out of bed and I was like, dude.

All right, man, I you know me I'm down to do whatever this side up and and i go and actually caught it all on camera and not I went quite a few times And now he's always traveling so i can get it out there but they take based off of your hair right they actually program specific frequencies and for the sound therapy, but also the visual light.

And then there's a specific vibration that the bed has as well, too. But it's specific to your information that they get from the hair.

Personal Reflections and Future of Longevity

So, and they have a way to measure it, just with that same hair, they could tell when your health is having a dip, or your mitochondria's not performing as much as it should.

Not with getting another hair sample. They just, based off of how they do this in this world of bio-quantum, you can be on the other side of the world, and they know when something's happening.

Some people might think this is crazy, but man, I mean, quantum biology is a real field of study. And there's this guy named Michael Levine, who's one of my favorite scientists, not unlike studying bioelectricity and how it affects the cells.

He's basically been able to grow like two frog heads by just using different electrical fields and not changing their DNA. So his whole theory is that DNA may not even be the hardware that we thought it was.

It's like making us rethink all about biology. And a lot of this has to do with quantum effects that we don't fully understand yet. But everything, if you think about it, biology is all quantum because it's subatomic particles, electrons, that are moving in the electron transport chain.

That's how quantum is, right? It is the movement of those. If you want to talk about the future of medicine, electromagnetic frequencies and bio-resonance, bioelectricity, I think that is a future.

Yeah. And listen, man, I remember getting a few phone calls from him and, you know, one day I was very stressed out. I said, hey man the system's throwing something's going on.

How do you that? And then there was another time I get a little sick and started getting, like, cold fever type of symptoms. He said hey, somethings up man.

You need to start taking some of these minerals I'm going to give you, blah blah. I'm not anywhere near this guy. So I don't talk too much about that stuff, even though my mentor since I was 19, Dr.

Willix, who was formerly a heart surgeon, he became a shaman. He actually went and studied with the natives in Peru, and he brought a lot of that He was so highly respected, even though most people that, if he didn't have that being a thoracic surgeon for so many years, people would just call him a quack.

But him being an MD, formerly thoraxic cavity surgeon, He's one of those people who, he worked with the Who's Whos, you know, for the years that I worked him.

Some of the most elite individuals would come here. He was actually the chief medical officer of a company called Cinegenics, which they were one the pioneers in hormone optimization and everything else.

So for me, hearing him and really understanding about this world of BioQuantum, I mean, he would just go off the chain. And I remember sitting in meetings with Mike Turrell, which is the guy behind whole tones, healing through frequencies.

They were just talking about what happens with different body parts specific to frequencies, and if you feed it this frequency, how it can heal it. And I was just like, man, we're still so far behind versus what a lot of these guys, and if they talk about it, I don't talk much about because then people will think it's voodoo stuff.

But I'm telling you, the future of medicine, is the world of bioquantum, in my opinion. There is no doubt it is. It's just a matter, we're just scratching the surface, but there is a group, if people are interested in this, there's a Dr.

Steven Guy who started a network where he basically has physicists and biologists, and they come together and speak every four months. He has a YouTube channel, so that's what I nerded out on.

That'll make my mind go crazy. Doc, as we wrap up here, if there's someone listening or viewing the podcast who really resonates with today's message, what is that last thing you can leave them off with?

The idea that your body has a communication system that breaks down, but we can use the right signals and tools to restore it. Your body can heal itself, and it's something we're learning more and more about.

So don't lose hope. If you have a problem or have chronic disease, there's a lot coming out there, Amazing. Doc, it was a pleasure having you on a Healthy Point of View podcast.

This was very informative. Thank you. Yeah. Thanks for having me. Awesome. Guys, you heard Doc. He said it very clear. Your body can heal itself. We just have to create the right signals.

Take this podcast. Make sure you share it with your friends and family other people who might resonate with today's message Make, sure, you like subscribe do all that fun stuff