Senolytics Explained: The Real Reason You’re Aging Faster Than You Should Transcript

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Podcast Introduction and Guest Welcome

Mitochondrial health is at the pinnacle of one of the things that we really need to be looking at. And if you miss it, it's terrible because I've seen it where like, you look at your like functional medicine labs, right?

You look all your inflammatory and your lipids and all this kind of stuff and this person looks great. Then you run their mitochondrial and it is horrendous.

You're listening to the Lifestyle Medicine podcast with Dr. Ivan Rusilko, brought to you by Access Lab, where we explore new perspectives at the forefront of personalized health care.

Well, welcome back to Lifestyle Medicine Podcast. I'm Dr. Ivan Rusilko. We're powered by Access Medical Labs. And if your physician's not checking labs, they're not a physician.

Today, I've got a treat for you, Dr Poziotopoulos. Again, that's a mouthful, but he's actually the owner, the founder, and the main man at the Pozzio Institute, which is almost as interesting as our main topic today, just the analytics, something that I hold near and dear to my heart, what I think is the cornerstone of longevity medicine.

Doctor, thank you so much for being with us. You're welcome. It's a pleasure to be here. Heck yeah. So how is Chicago treated? I have to ask. Chicago is great.

it's an awesome city, you know? Tons of culture and it is super clean and there's not too many people here and the two months of super cold keeps most of the people away.

I can't go wrong with that. So it was funny, we were actually talking before we got this podcast, and we're talking about senolytics and kind of shooting the breeze.

And then we kind got into the positive institute. I'm almost as intrigued in that as I am in senlytic. Could you explain how you came up with the idea of the posio institute and what it actually entails?

Sure. You know, I went through functional medicine training like everybody else. What I found was that If you just treat everybody a la carte, they're kind of running the show, you know, when they are going to show up, what they going do.

And it doesn't optimize people and you're not going reduce what's called single points of failure. At least engineers talk about that in aerospace. So I wanted to use aerospace algorithms because engineers that use Aerospace Maintenance Engineering algorithms, They reduce single point of failures drastically.

They improve optimization, they improve longevity, efficiency, all across the board. And so you follow algorithms. So I want to use those same algorithms and I wanted to change them for human biology.

Poszio Institute and Medical Maintenance Engineering

And the other thing I wanted to do is I want to talk to patients or prospective patients before they joined up and see did they have radical willingness to change their lifestyle, to take their medicines, communicate with us, show up regularly at regularly scheduled intervals, just like your plane, if you own a plane or whatever.

That plane has to go through regularly scheduled maintenance and checks, and even the pilot has do stuff before they take off, all that kind of stuff.

So this engineering that happens in all of science everywhere doesn't happen in medicine. So I created the Institute to run off of these algorithms. And, you know, what we get out of it is we.

Robust changes and their physiology. That's great. You find things. We find it early. If we find cancer, we'd find early, so if we can find these early we're going to do, We can deal with it.

I love that. They're very, very cool. And again, I think it's a systemic approach is formulary because again like we were talking earlier, one of my favorite terms are homo sapiens sapience, you know, like, yeah, it is the same thing.

Like you're one model. In aerospace, they got to deal with a million different models. You're a one-model. Everyone thinks that they're so different. I have this gene, or I had that gene.

They are like 99.9% the Same. It's like I'll deal what the small differences are. Same instruction manual with minor differences, right? Yeah. And the other thing that I found with functional medicine that didn't like is everybody's getting a la carte and they're getting nickel and dined.

Oh, I want you to do this bottle of this supplement and that bottle, that supplement, and this and, this, right? And then all of a sudden they were like, Oh I didn' know I was going to spend this money.

But we tell them upfront, it's going t cost this much money for the year. Everything's included. Right. And even with their supplements and their medications, we package all of them for them to make it super easy.

They're given at different times of the day. We're going to be rolling out later this year software that they just take their pack and they run over your phone.

That goes right into our data lake. I love that. You know, we have compliance data and a lot of physicians are giving out supplements. They have no idea if people are compliant.

People lie. Why they lie, I don't know. Especially to themselves. But like, you know you run labs, like you're not taking fish oil. Very true. Right? But now like we know exactly like what are people doing?

And it just makes it easier. We want to make things as easy as possible. Yeah. And again, like, especially with the technology of AI, you have all kinds of different computer softwares, this, that, and the other.

I mean, patients and doctors are becoming more technology aware of what health is. It's like a wild west is slowly getting smaller and smaller, which I think is fascinating and scary at the same time.

You know? It really is, I love that patients use AI. But you know, we have our own AI that we've trained here. And I'll be like, look, it's how you prompt your AI and what data sets it using.

So it was like you said to your, AI blah, blah blah. But when I put it in, like what happens is different. It's because the data that we've put in and we have it accessing all of the that would ever run from the beginning of a clinic.

Right. And all the studies that we've looked at and all of our algorithms that We've done for medical maintenance engineering. and so I want you to look into things and I wanted to kind of own your stuff, but at the same time, I actually kind Of believe what we're doing and you know, understand it and be a member of the Institute and study this things that were giving you and then, you Know, go ahead and, and play with your AI and stuff like that, But I'd rather you focus on doing the things That we are telling you.

Right? For sure. For Sure. Yeah, no, I couldn't agree with you more than that again. It's unique how how it's like evolving every day, you know, of course, there's this AI, then there is that AI.

This influencer said this, this doctor said, it just it is getting so convoluted of points. Is it like, we need common sense medicine. And I think what you're doing is breaking it down to the straightforward form, formulary.

We are homo, homosapiens, I love that. So kudos to you on that one, you know. And now, let's segue, go to left field out of right. Let's talk about senolytics.

I thing senlytic is probably one of the most overlooked things right now in regenerative, functional, whatever you want to call it, all these industries right know, so can you give us a brief overview of what senulytcs are and kind of, the idea of why treating them is so important?

So you need synthetic cells when you're being developed. They're good for healing and for creating things like say like you're making a heart, right? So you got a ball of cells, but you gotta make all these chambers.

And senolytic cells help kind of regulate, you know, what cells die so that things can fold over and do that kind stuff. They are really great for wound healing.

Um, they're also really good. For preventing cancer in certain circumstances, Right? so you can't just get rid of senlytic cell. they have a certain need.

The problem is that the older you get, the higher the population of these cells become. Right. So, you know, kind of like, uh, an overview would be like these are cells that don't want to die.

They don' to go away. Right? They're not playing ball, so they're n communicating with the cells tha are next to them. You know? So they'r saying, I don t want talk to you anymore.

Senolytics and Fasting Mimicking Diets

And they're secreting all kinds of things. We call it the SASP, the Sinolytic Associated Secretory Thenotype. And this is a bunch of like interleukins, you know, and cytokines, some enzymes and some other signaling proteins.

These are really damaging. So they can interfere with the cells that heal you. Microglia, astrocytes, you know, even parts of your immune system that it's like dealing with like joints and stuff like that.

Any metabolic tissue like liver, kidney, heart, brain, they really tend to disrupt that a lot. And so we don't want them to proliferate. A lot of this proliferation, the reason that they can stay alive is that, that are messing around with the mitochondria's ability to go through apoptosis.

through cytokine C, right? And by doing that, then the mitochondria are having a hard time treating this cell off. So we want to like, turn them down, make sure that they're not growing enough.

And then we have all of these protocols that we're using to target them. In the near future, we'll be able to use some really great targeted drugs. It's just right now, the drugs that were looking at in the future are these BCL2 family inhibitors, which we found from lymphomas.

But the problem with those drugs is there's some nasty side effects. Yeah. Right. Thrombocytopenia, all kinds of other stuff, you know, general lysis syndrome, it's all over the place, right?

But we do have some really good targeted ways of dealing with them. Fasting works amazing, because that turns on autophagy. Could you expand on that just a bit more?

Because I know I get that question in my clinic all the time. Well, is fasting going to do, this is a new thing for when it comes to synthetic cells. So I'd love for you to kind of touch on how fasting can actually help your body reabsorb these cells?

Sure. So when you're in a really well-fed state, you are churning out the molecular target of rapamycin. Right? So if you want to do some bodybuilding or something, that's great.

But the problem about that is that when turn up mTOR, You turn down autophagy. so it means that all the senolytic

cells can grow, pre-cancerous cells grow and your body's not doing anything about it.

Right? So we want to do intermittent fasting. So like, I love Prolon, you know, it's the fasting mimicking diet because we can do it like every quarter.

Right. And you can, by doing that, we lower mTOR and turn up autophagy. and here at the clinic, like I have like a rotation schedule of like growth versus lean, or what we call it, build versus the lean cycle.

Right. And the lean cycle, we're on a low calorie diet. We're also on low protein and low animal because animal proteins very high in methionine and Lucy, which Jack's mTOR.

Right. Plant protein doesn't have those super high levels. I mean, there are some things like tofu and stuff that have higher levels, but not like the animals.

So we kind of want to like lower that. We also want put people on a low protein diet. And I always tell people that like high protein, diet, short life, low-protein diet long life.

Right? And it's all throughout the literature. Right. Um, and I don't know why all these other people are saying high protein. It's crazy to me. Uh, it doesn't really help you build muscle.

We know that more complex carbs help your build muscles. So it's kind of like, um, you have to build a house and you need to say a hundred bricks to bill the house.

Bring 200. That's not going to help. Now you got to deal with all those extra bricks. Those extra bricks. And so, you know, those extra Bricks and for you, You're going to make sugar in your liver.

You know you're gonna do all kinds of nasty, stuff. Increase all this nitrogen in you body that you don't know what to do with. It's going affect your kidneys and most of all, it's just going raise them to one.

Right? So lower protein diet, especially during lean cycle, we end lean psycho with a fasting mimicking diet. Now we do a little bit of build. So we go up on the calories a bit.

We get people that like build up their muscles. Right. And then we repeat and by doing that, We can target a senolytic cells. so at the, at, the middle of a lean psych or like that at end of the lean, cycle end to eight weeks, you do that fascinating.

During that time, that's when we hit them with a bunch of Centilix. So Quercetin. Meat, potatoes of this one. Here we go. Quersetin, Fizzetin Tethia Flavans and Desapnib.

Yep. Desanib is great. I love that combo. So that's our little cocktail. And we usually give that near the end of the fasting because about three days into a fasting mimicking diet or a water fast, I just don't like water fasting anymore because Walter Longo kind of showed us that, you know, a five day water, fast.

You're going to lose a little bit of muscle and you're actually going have a bit more inflammation than you would if you do fasting. Okay. So, um, and get all the benefits of fasting, mimicing, And I'll tell you what my compliance went up dramatically.

I had like two or three people doing water fasts for five days. I have like a hundred people. Could you explain the main difference between the two for people who don't really know what a waterfast is versus the other one?

Sure. So a WaterFast is basically, this is what you get for 5 days, right? You know, and how about it? And, you know I did it for many, many years. Right.

And I used to do like a lot of fasting. I had to a five day water fast every three months and every month in between, I would do a three day. Okay. Just found it was a little bit too much.

Now just in the fasting mimic gang, this came out of $50 million worth of research at Walter Lamos. So they got a grant from the government. You know, and they looked at all these different foods that could mimic this state of fasting.

And you get it, you know. I don't know five to 600 calories a day. Right. Sometimes a little bit like day three. It's a pretty much lower than that. And it's all like soups and you know, some of these little bars and stuff like that, and, uh, you get some, a glycerin to help, help with the muscles and.

You get a breakfast, little lunch, dinner, snack every day. Right. You get some olives and it's pretty tasty. Um, and now all their soups are liquid. And so you get five boxes, you know, day one, two, three, four, five, And you just follow it and you feel great at the end.

Inflammatory markers drop. Average person loses like, I don't know like eight pounds. Now you think like oh my God, that's terrible. It's not, it is water.

Right? Because you go through glycogen depletion. And so all the glycogen after a couple of days has gone out of your muscles. Well, what goes with the Glycogene is water.

That's why it's a carbohydrate. Right. And it just water loss. But the average person loses almost a pound of visceral fat by the end of the fasting. Okay.

To me, that's like profound. Right. So three days into this diet, your body's kicked in and autophagy is running strong. And so your bodies already going after these bad cells instead of, I'm going to get these senolytic cells.

I mean, we'll get this pre-cancer cells and then you hit with all the senoliths. and so we get at this really profound effect out of body. Right after that is when we go into build cycle because we cleaned out all of the bad.

so let's build up the good. And then we just repeat, rinse and repeat. Rinse and Repeat. Now, is there a way that you might clear too much at a specific amount of time so there's too many cells that are leaving the system that can overload you or is that almost impossible?

I think you can only do that with really powerful drugs. I've never seen it. It's theoretical. i think it's more theoretical if we start using these BCL2 inhibitors.

That's a real possibility. There's people on to satin like a hundred milligrams a day for like years and years. Yeah. We're just using it a couple of times every quarter.

So it's not, it, not anything that's going to really cause. Have you ever done it done the research on the Fox Oh four DRI or no. Right. I haven't played with it.

It's gonna be great. You know, once we can dial it in, you know we're indirectly affecting Fox. Oh, through the whole program. Perfect. And again, like, you know, I think the Santhinib and then in Corset and like we, we do a lot of the, uh, the Courset in IVs here, which again are kind of focused on that.

I it's, it is fantastic. The way it works plus everything else it does, minus the actual synthetic actions of it. There's so much more that it can do as well.

Sure. Right. Um, and try to rotate lots of different things. Cause there's always these feedback mechanisms. Right. And your body's always trying to find homeostasis, even though it can never, it's not, not theoretically possible to get home, you know, stasis that like, your bodies always moving towards that.

Right? And so if you hit something for too long, Your body is going to regulate. So I love to pulse things on and pulse, things off, pulse on, pull things.

Mitochondrial Health and Performance Testing

You know, it's the same thing with like, you know. Low calorie, a little bit more calories, right? You don't have your lifting, lighter lifting more like calisthenics and that kind of stuff.

And your body responds really well to that. Yeah, exactly. So when it comes to the actual senolytics, can you explain how they focus on the actually cell itself and not healthy cells?

Yeah. The senlytic cells are turning off that mechanism where they don' want to die. Regular cells aren't doing that, right? They're not turning off with that cytochrome C, so that's all working.

So when you're working with senolytics, they're targeting that mechanism of action in the mitochondria. And the other cells are already fine, you are not going to target them.

We like to use metformin too, because metormin is more of a centimorphic. The difference is, a senlytic is something that is going go kill those cells directly.

And a centimorphic is something that's going to kind of mitigate the issues of the release of all those compounds from that cell. Exactly where I was going.

Now, did you focus on anything like mitochondrial enhancement while you were doing this? I mean, just for disclaimer, I'm on the advisory board for, um, Versailles and, uh, versaille is the me screen test.

So Dr. Hemal Patel created the me screen tests from a grant from NASA. Cause before that you had to do a huge needle biopsy of your quad. You know, that's not comfortable and a really sophisticated lab can only do like two of those tests a day.

So he was able to take serum and use serum. And. He was basically finding, you can talk to him more about this, but basically if you take a standard kind of mitochondria and you put it in your serum, it'll function like you.

And so they found that by this assay that they came up with is about in 95 to 98% is accurate as a muscle biopsy. So it can tell me like how accurate, like, how much energy can your mitochondria make?

How do they work under stress? What kind of reactive oxygen species are being made? Right. How did they were out of those happen under your stress. And so there's all these different categories that you can look at.

So I do that test here every quarter. Because I think that mitochondrial health is at the pinnacle of one of the things that we really need to be looking at.

And if you miss it, it's terrible because I've seen it where like, you look at your like functional medicine labs, right? You look all your inflammatory and your lipids and all this kind of stuff.

This person looks great. Then you run their mitochondria and it is horrendous. And so, you know, we come up with mitochondrial stacks and, there's all the lifestyle stuff you want to be doing.

Like you wanna be going your cold plunges and your saunas and you'll want make sure you do explosive work. The one thing that I really have a hard time getting people to do.

And then once they do it, they get addicted to it is sprinting. You know, when you get older, I would love for people to do a hundred yard dashes, but they pull hamstrings, right?

Cause they haven't been doing it. Cool in the hammies, man. Heck yeah. And then you're screwed, Right? So I have them sprint on a bike, or like on, on skier, because it's really, really hard to pull muscle on bike.

And so, but I want this like really high end output because you have about two to three seconds ATP, you know, about four to five seconds to create team phosphate.

If you're not at like a hundred percent output, You don't even tap into that. Right? Your body's just using glycogen. Right. And the mitochondria are like, whatever.

But when you're at a hundred percent output and you deplete the ATP and the creatine phosphate, mitochondrial freak out. That's the stress that you need, the hermetic stress for them to divide and to become larger and more efficient.

I try to get people to do sprinting at least twice a week. Then I also want them do deadlifts. Right. I'm just really good for him and, you know, bracing the core, the whole kind of thing.

And then mitochondrial stocks, kind like, um, PQQ, CoQ10, carnitine, taurine. You know? Like there's a bunch of stuff. The most important thing is working on keviolin.

So the mitochondrial, they need certain fatty acids and the, mitochondria are just not sitting there talking to each other through quorum sensing. They're talking directly to the cell membrane and they're also talking, directly, to nuclear membrane.

So they are kind of coordinating everything. But if they don't have the right fatty acid for the cells membranes and for, in caviolan, it can't communicate.

And so, you know, we also make sure that they have enough like phosphatylcholine and phosphatylserine, right? And, so that you can build these things up.

And that's all in those supplement packs. We also tell them what dietary sources are good for that. It's really awesome because once you start doing all this stuff, You notice that meter go way up and their mitochondrial score goes super high.

Now I know. Okay. You're doing well. From an engineering perspective, I have a lot of engineering friends. I probably would have been an engineer if I didn't become a doctor.

Um, there's a saying, it's like, give me enough energy and I can fix anything. Very true. And again, you kind of have to do these in tandem in a way. You know what I mean?

And so your mitochondria making all your energy. and so if your Mitochondria aren't functioning well, think about it like a factory, like okay, if all of a sudden I, have one third of the amount of energy that I need, I'm going to have, to shut certain machines down.

Right? And they were going to have to like, make it warmer because it can't run the air conditioning now. And now, you know, and I can afford to, have these other people working.

You know this is a big problem because the older you get, the more damage is happening. Right. So you actually need more energy. The older, but the old, do you, get the less energy you have available?

So it's one of the reasons that the oldest you'd get to faster, You get old. What a conundrum. Are you are you dabbing anything like when it comes to the actual mitochondria things like MOTC human in SS 31? Yeah, so I've done a bunch of these to use a lot of those peptides even before like the FDA shut everything down.

And they're mild. I wish that they were robust. I really do wish they robust the supplements and the lifestyle Trump them so strongly. They're just such a mild change, but they get touted.

Like they're massive because of the propaganda behind peptides. Um, and not that I use peptide all the time. Right. But like, I've never seen them move a me screen that much at all.

Nothing trumps lifestyle. I mean, like you said, I think you nailed it. Sprints, deadlifts, things like that, getting good sleep, all that kind of stuff tramps any peptide hormone on the market.

Yeah. And you know, i'm a big proponent of sauna because of the, you when you're in a sauna and you release heat shock proteins, You can enhance how you fold protein.

The older we get, the worse protein folding happens. So the ribosomes, they'll go make the protein, but then the folding gets all messed up. But if you have enough heat shock proteins, your folding becomes really good.

You got to be in the sauna a lot. I used to just say, okay, get in a sauna like three times a week, and now we have more data. If you're in it seven times, it gets even better.

Wow. So it's up to seven now. I heard five was the gold standard. Yeah. It's like, you know, I'm just like. You know now I try to get everyone to, get a really good quality infrared sauna.

with high tech house out of Boulder. Cause I really like their emitters and you, know it low EMF and non-offgassing wood and all that kind of stuff. But the reason I like infrared over regular sauna is the amount of time spent.

So if you swallow a thermo, like they had these little swallowable thermometers, so they can look at your core body temperature and you put somebody in a good infrared and then you'd put someone in like say 190 degree regular sauna, right?

Eventually they'll both get to the same, you know, core, body, temperature, but the infrared gets there faster. Faster. Okay. Right. If you stay in the hot sauna you'll get higher.

It'll even get hotter. But you don't need it. Right. Cause really all you want to do is detox and raise your heat shock proteins. And we know if you're in too hot of heat, it's an extra stress.

So then you go in the opposite direction. It's like, what's the right amount of stress? What about steam rooms? It doesn't raise temperature fast enough.

Okay. Yeah. But the infrared sauna, cause it cooks you on the inside. You go to dinner somewhere where it is cold and they have the heater above you. Right?

And you're instantly warm. Right. Cause you getting cooked. So, uh, you know, I'll get in the sauna and I'm just stick my back right up against the emitter.

And, within a couple of minutes of sweating and you get into the regular sauna kind of takes a little longer. right? So it's like, it can get the same benefit, but like I noticed that like 25 minutes in my sauna is enough.

and the data from the infrared is about like 140 or above for 20 minutes. And I just say, once you start sweating, that's when you can start the timer.

Oh, okay. I like that, actually. That's super good. Now, when it comes to the whole mitochondria stimulation and the holistic therapy aspects, are there any dangers that somebody should watch out for?

Yeah. You know, I wouldn't take quercetin and fisitin all the time. It needs to be pulsed. What's a good pulse schedule, would you say?

Lifestyle Tools, Supplements, and Sauna Protocols

I would say for the average person, you know, one of the safest things that can do, and I know I'm throwing out a whole bunch of names here, but we're not doing CNN.

Do it. I love the life extension product called Centilitikette. Okay. Um, there's a lot of data behind it because a lots of Querstin and Fizitin is not well absorbed and it needs to be in a formula that's been tested to have high absorption.

Uh, the other reason you'll know whether or not it's working or is you don't have a loose stool. You know, cause

some of those cells will die and, you know.

I think that's kind of a good measure of whether or not you're getting it. And so three capsules of that once a week is good. and then, we do that for most of the time, but then we even take some time off of.

Well, like we're doing built. Okay. Right. And so I think that's plenty. You know, I'd think anything beyond that is more like if you had chronic inflammation and you didn't take extra quercetin or something like for that, until you figured out like, where's the inflammation coming from?

Like what foods is causing this problem? Or, you know is my stress too high? Am I not in cold hearings? I'm not sleeping well enough. So you can figure that out.

I mean, it's fine to do some quersetin, but like the higher querson is like that it is a band-aid approach. And it's great. Sometimes you need a band-aid approach, but let's get rid of the band aid approach and get you more optimized.

Is there a way you can measure the amount of senescent cells you clear at the moment or not? There's a test, there's bunch of different ones, right? And, you know, There is like the top 10 SASP, Right?

IL-1, IL6, TNF-alpha, tissue growth factor beta. You know there is a bunch that we measure. There a lab that use, it's Cytodx. and it has like pro-inflammatory and anti-flammatory cytokines.

So it gives me an idea of how well we're affecting the SASP. We get that on the patients that are on this program. It's a little expensive, but there's lot of clinicians following this and you have to have dry ice in your clinic.

which is dry ice for you know, you just have to make sure that it arrives frozen. So you can do it without dry eyes. You just, get two really great thick ice packs and just sandwich them and rubber band that thing and send it and hope for the best.

But it usually does work. Okay, cool. Cool. Yeah, guys, I was curious. I think diagnostic testing is the paramount for everything. So when somebody comes to your clinic, are you testing for natural killer cells and different types of autoimmune issues or anything like that to kind of set them up for the actual treatment?

Yeah. We look at it sometimes. And I just like using inexpensive testing through that because sometimes you have to go down the rabbit hole and those are really expensive tests.

But if you get true age, um, and you know, Ryan Smith set the set that up, right. They test for a lot of this stuff and it's not direct testing, but it it, it good enough.

Right. And I think that like. If you're looking at like neutrophil lymphocytes ratios and neutrophyl, like, uh, monocyte ratios, you just reading your test, your normal test pretty well.

You can kind of see if there's something. Yeah. And if you start seeing that senescence that's, then you can start that immune senesis, and then he can go down to rabbit hole and order a bunch of stuff.

But you'll see immune senescence in your normal labs and in, you know, what I call the age-adversal labs, right, your epigenetic biological tests, like your glycogen age, make sure you're checking your Glycans, that cytodx look at your SASP, you know, and if that stuff's on point, like your natural killer cells.

It's good enough there. Yeah. You know? Like unless he had some weird genetic thing, but we also do shotgun genetics and everyone that comes in. So full genome, just so we can look for all the weird stuff, it happens once in a while or somebody's got something that, is really going to cause a problem.

And then we just try to come up with a plan for that. Right? Just to decrease that or, you know, try to mitigate that as best we can. No, I think it's great.

Like, especially if you see certain things like, extremely chronic reactivated EDV, CMVs, someone with mold toxicities, all these different things, they're going to have ass all day.

You know what I mean? Like such a situation, like no matter what, You're gonna want to take them down that whole, senescent cell clearance aspect of it too.

So like you said, kind of make those associations. Yeah, it's great. You can measure MMPs, right? Like MNP9 and MnP3 and stuff like that. That's part of the site of DX, I think.

I I don't know. You know, I just think the protocols work great. Yeah, for sure. It's just getting them to do it. We all know we have them. So you might as well clear a little bit of it, you know?

The older you are, shit, man. Keep going with it! That's why, we always like, that's how I do the interview, right? Do you have radical willingness to this?

Because it's not easy. I can't just give you a simple pill. No, for sure. Maybe one day it'll be Star Trek medicine and I can retire. We still have a couple of these.

I'm actually coming to the end here. Always like to ask everybody who's on here two questions for it. And again, one's a unique one, and one is a basic one.

So the first one if you're a physician who is looking to get into something like this, or actually you'll come to your institute, And you're coming out of the whole traditional medicine box.

What are some things you want to look at when it comes to jumping into this industry? Like, you know, what are good places to learn or some good ideologies to take into building a practice?

I think right now a good place to learning is either Institute for Functional Medicine. or American Academy of Anti-Aging Medicine. I think those two have really good, well vetted programs to like get an overview of things.

The issue I have with those is they regurgitate all this information to you and they don't tell you what to do. It's like, wow, go out and figure it out.

Yeah. And so the project that I had going on right now is called the Institute for Medical Maintenance Engineering, IMME. They can go on the website and look at IMMe.

And within a year from now, we're going to have a physician training. So we'll going train physicians to be medical maintenance engineers. And we are also going be giving them everything that they need.

Say I'm a Physician and I want to start something now. I have to a business owner and then I'll have supplement stock and connect with all these pharmacies and it's a big pain.

What we will do is give them all the algorithms that I've built out. and we're going to give them all the software so their patients have the app and all that kind of stuff.

And then all they do is they just sell out a sheet, basically like what supplements does this person get, what medicines does the person gets, and then what hormones do they get and everything's fulfilled for them.

Training Physicians and Choosing the Right Clinic

I love that. And all that other training we just give them. It's the future. That's going to happen soon. The consolidation of knowledge, which I think is good because right now, like I always tell people, we're in the middle of the wild, wild west and one of biggest markets on earth right.

Now there's so much miss and disinformation. it's bananas. You have people who aren't even physicians dictating

like law here. I mean, if I hear one more influencer tell me about a peptide, I'm going go crazy here, so I don't want that angle.

Yeah. So, and we have, I've got about 12 people on the scientific advisory board. Uh, Hemel Patel's on there. We even, Aubrey DeGray is on. Yeah, so we got some really great, uh, people.

It's a horsewood on that. Most people know she's out there, you know, it's not just like, Oh, what does Alex say? You know? So this is all vetted out, you know, and we have it.

We have the algorithms, getting looked at by everyone, scientific community, at least people are, tenured physicians are there, PhDs with tons of work.

So it's been looked up by a lot of people. we had a huge data lake, we haven't AI on top of that data Lake and everything's integrated. I just think that, physician coming through the program, they're going to be like, Oh, wow.

You know, this is great. And it's just not, you know somebody regurgitating something for functional medicine that's been regrogated for 20 years. Exactly.

Oh yeah, You couldn't be more right on that one. So the second question is, let's kind of flip the script. If you're a patient, working to come into this industry from traditional medicine, what are you going to sit there and basically tell them like, This is what you should be looking for in your doctor, in you clinic, or basically, if you want to figure out how to really conquer this, market and your health, is this what should find in a functional medical doctor?

Yeah, I would say, you know, ask your doctor like, okay, and you go on chat and just ask Chad or Brock or something to give you a little list, right? And just say what are the top 10 ways that people die?

Right. And you show how are you going to prevent these things from happening? How are we going look to see if this is going happen to me in the next few years?

And they should be able to tell you, like, we're going to give you a clear heart test. We're gonna do this full body MRI. And we are going do RGCC test to look for, you know, circulating tumor cancer cells.

You know? And if they don't have a quick answer, they're like alright, that's a problem. How are you going optimize my hormones? Right? And nothing against the people that are using injectable testosterone, but the data on injectible testosterone versus the pellets, as far as cardio protection is concerned, it's kind of lacking, right?

And the other thing is like, It's highly dependent on people doing what you tell them. Hardest thing to do, hardest thing is difficult, right? But like when you're placing a testosterone pellet, like one, you can give a fraction of the amount of testosterone over 13 weeks in a pellete and you canned an injection.

Right? So that's less metabolized testosterone, which is good. We don't want a ton of metabolize testosterone. We also don't want to inhibit the feedback loop between your brain and your testes as much, you know?

So if I can give you less testosterone in a pellet in greater outcome, that's great. Now, and there's people doing like estrogen pellets and not so much against that, but like.

The problem with that is there's only E2 pellets. There's not E3 pellet. And so you can't do that E two to E three balance for cancer protection. God forbid somebody gets breast cancer or something like that and you're not getting that pelleted out.

No, for sure. That's what I'm saying. If there is no going back on that one. Right? And the other thing is like, I give hormone cream. So I'll do my estrogen.

I do E 2, E 3, and I will do progesterone and cream, And I have them put it on their face and neck. And we have a Vizia analysis here, and within six months, their skin age drops dramatically.

And their collagen production goes up, when their elastin production does up and it's amazing. If you have the estrogen pellet, it can happen. True, very true.

on that one. I like that. Again, like, you know, I've really enjoyed talking to you today because not only do you have, what's going on, your helping to empower physicians, which is great, it's gonna increase efficacy across the board, but at least you're given information that's actually usable and certifiable, i guess you could say.

Which is what I liked. So, for all the physicians and everybody listening here, where can they find more information about your institute and about kind of everything you've got going Um, they can, um, I have a ton of lectures on YouTube and they go to our web.

They can go PazioInstitute.com and there's like a list of videos there. Um I'm always speaking somewhere. So that's great. And there are tons of really good podcasts that I've done.

Uh, so they do that. There's some, there is some information there, you can on the Institute for Medical Maintenance Engineering website. What's that name?

IMMEglobal. com right now. They can check that out and I would say stay tuned for the IMME for, the trainings that's going to be coming up soon and you'll be, they'll get a certification and then you have access to the data lake and all this stuff.

Right. And it'll, be so much easier because you won't have to have all of this crap in your office. You know? You don't have to be, you know, to worry about inventory and all this other stuff, basic stuff you will, but it's nothing like you have do.

Setting up a functional medicine office sucks. That it does, man. I hear you man, your god's ears. Holy cow. Well, we're trying to make it easier for the patients and try and make easier.

For the doctors. Yeah, exactly. It's the whole thing. And I think it needs to be easy for both. I mean, I, think with what you're doing, AIs, when you do it correctly, formularies, and like you said, the homo sapien sapiens kind of have like an actual structured aspect on how to treat everybody.

it's great. This is what this industry needs. One of the really great things that I'm thinking we'll be able to do really well is we are going to try to pair people that want to start a business and physicians together.

Love it.

Closing Remarks and Access Labs Outro

Right. And so it's just like, okay, these guys got the money and they're going to open up the box, right? And we're gonna pair them with a physician and the physician's gonna vest over X amount of time.

Your salary is going go up and then they have a percentage of the, of, uh, clinic. So now you tied them together and physician doesn't want to leave because he's vested or she's invested and you know, and, it works all around.

and Then you, know that you're, going be treating people properly because you are in the program. I think it's great, man, you got yourself a good former there, my man.

I gotta say. You take a long time. It's been a real delight, guys. Check everything out. I mean, like, I'm gonna go on there and obviously nerd out a little bit more.

Thank you so much, my man. It was so good to have you. Again, this is the Lifestyle Medicine Podcast. We're powered by Access Medical Labs. You can find us on YouTube, Spotify, pretty much anywhere podcasts are found, you can us.

And again, just stay tuned. check him out, This is really, really good stuff. Not only the analytic aspect of it, the mitochondrial, we, that was a fun surprise as well, as the Institute and everything else.

So my, man, thank you again. My pleasure. Take it easy. Bye bye. Thanks for joining us today on the Lifestyle Medicine Podcast. At Access Labs, every innovation we pursue is driven by one bold purpose, making personalized medicine more practical and accessible for patients and providers.

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