Introduction to Metabolic Health

Parkinson's everybody used to think was a genetic disease and then it turns out it's only 6% genetic and 94% environmental burden. More than 115 million Americans have pre-diabetes and most don't even know it.

Tired midday, being thirsty, gaining weight that can't come off, even that only 10 pounds. That's probably glucose and insulin dysregulation going on and that's pre diabetes.

Today's guest is Jim Lavelle. Hey! This is Jim Lavelle, clinical pharmacist, author of over 26 books, and creator of the Synapsin Nasal Spray. Founder of Metabolic Code, Chief Science Officer at Lifetime, And the expert pro-athletes and Olympians trust with their health.

We developed something called Synapsein, which was a nasal spray. The RG3? I developed that. Hold on, you're the one who developed it? Why did I not know that?

I do this nasal spray every morning and it puts my life in high definition. I hear better, see better speak better. Everything is just, it's almost like the limitless pill.

Metabolic disease is the influence of what we do to ourselves, our genetics, and what the environment does to us, right? Here, I need you to do cold plunge.

And I want you do the sauna. Want you these stem cells. Do these exosomes. But you still have to create foundational health with people. Be fair to say that we currently, when it comes to modern medicine, we live in an algorithmic pharmaceutical driven system.

What we fail to do is… This guy here is pretty metabolic. When it comes to peptides, he's bigger, right? We have him talking about the news, other podcasts.

Today's topic is metabolic, and we're going to talk about a two-week topic. And today's guest, Jim Lavelle. Yay. All right. All right. That's the that's, the best introduction ever.

I'm just telling you right now, like I've juiced up now. No, thanks for having me. All of it. Jim, you're heavily involved in multiple. Right. One of the gurus behind hepatitis, we got a lot happening.

So first question. The view is a way back. What was that? Oh. Well, I was born in Pittsburgh, so I'm a ghost dealers still, you know, and Italian family.

I. Was a scared little boy that sat in the corner and was. Really very introverted when I Was young and as I started to grow. I got to about seventh grade, all of a sudden I get tall and got some broad shoulders.

And that kind of changed some things a little bit. I always liked studying, always like reading, I think was very inquisitive about things. I'd say sensitive.

And then just becoming an athlete, that's what lit my fire. At age 13 I'm going into my freshman year in high school and I made my mom and dad take a bench.

a barbell and a set of weights on vacation in the trunk of the car. I was like, I got to train because I'm going to try out for freshman football, all boys school, top league in the state of Ohio, right?

Because we had moved to Ohio and I just had a passion for it from then on and, you know, was just absolutely in love with staying physically fit. And that eventually led to, competing, qualifying for a national event and

bodybuilding and and just.

But, you know, it was interesting was I also was kind of a sickly little kid. I mean, I thought Amoxicillin was a part of my meal plan. You know? And dimetat was dessert.

That was sick. Allergy shots, all that stuff. And that's where I really discovered, why integrative health was so important. So I got to be 20 years old, won that bodybuilding competition.

It felt terrible, man. Skin rashes and bloating and all this stuff going on. I had to go to somebody, this is back in 1982. I went to someone who was very knowledgeable in integrative care and I listened to them, followed through, changed my life, change the way I felt.

And I was going through pharmacy school and was lucky that it was, you know, the Lloyd brothers, which were the founders of it, most famous botanical extractors in the world at one point.

And so we had pharmacognosy and organic medicinal chemistry and compounding back then. Right. So it, it just kind of combined for me. And that was the path I wanted.

Didn't want to just give out drugs and tell people, here's your prescription and gee, you know, Here's the side effects. I want it to really understand their chemistry.

That's kind. It's kinda how it all flowed together for. Sure. Was familiar with the pharmacy though, because I was always there almost every week getting some kind 1983. You know what?

When I was going through pharmacy school, we weren't allowed to use a calculator. We had to a slide rule. That tells you how long ago I went through Pharmacy School, right?

It was very different because we had learn how to compound things and make things, and extract things. Oh, all that, man. We're doing the whole thing with the mortar and pestle and isolating compounds from extracts and making new compounds.

So it was pretty neat. It was interesting. I had a lot of regrets about going through pharmacy initially because I was so into natural therapies and botanical medicine.

Jim Lavelleu2019s Background and Training Path

You know, chiropractic, physical medicine, training, all this stuff. Why did I choose this? Why? And you know what? It's the best thing that could have happened because I thoroughly understand how receptors work in your body and everything from an emotion to a toxin, to botanical, or a nutrient, a peptide.

Everything gets influenced by what happens at those receptors. I could not be happier. I'm more proud to be a pharmacist than, you know, and I've taught in medical school, pharmacy school.

Oriental medicine school I mean, I have to have taught a lot of different schools and. And I just really happy that, the plan that was laid out for me that I, that took it.

Sure. I use performance enhancing. I didn't do a lot. And I'm going to be honest, I was very strong as a 16 year old at a 400 pound bench natural. Man, that was pretty legit for a sixteen year-old kid.

Um, and so I. Pretty strong, pretty thick. But I did use some performance, enhancing drugs when I, was like, you know, going through my, my competition.

I only did two competitions after my second competition. I said, this isn't me. And I never really took any performance enhancing agents after that. It just didn't feel right to me, I just wanted to train and be healthy.

No, it's interesting. Pharmacy for me was it really was I was at the pharmacy so much and this independent pharmacist was just like the nicest healthcare provider taking care of me.

And I was like, I want to be like him. My mom was a technician at a, at Rexall pharmacy with the whole soda fountain thing. Remember this is 1964. Yeah.

I'm 66 years old, 1964, sitting on a soda Fountain at the Rex all pharmacy, looking at my mom, making stuff. Uh, think that was the original piece of it, but then I actually got interested more in vitamins and nutrients first.

And then, because I decided to compete and the way I am, if I'm going to. I want to figure out how I I'll win. And there wasn't any way, I was going win back then because, you know, back and there was a natural bodybuilding.

Um, but I didn't go heavy. Like a lot of, I'd say my, you know, my gym mates were doing it. They were, they were really into it big time, But I just, honestly, was getting ready to train for my third show.

I, just looked at, what I was going to have to do. And I said, You know I'm going dedicate myself to my studies. and, and I actually went, he just passed away.

Kim Wood was the strength coach for the Cincinnati Bengals. And he was, um, Nautilus Midwest, uh, distributor and he had to call the Kong room, all the knowledge equipment, experimental knowledge, equipment.

I got a job as a trainer going through school and I met with him and He put me through a workout. And I, I it, it changed the way I thought about working out.

The intensity was high. It was like a Dorian Yates style workout, right? Higher intensity, really intense. And. I just lit a fire under me to go that path.

So I got into more being able to run Hills and bike and do high intensity training and become more. Say I don't like using the term a hybrid athlete. Just wanted to be more complete as a person that was, you know, loved physical activity.

Yeah, right Oh, there you go Sure Right But that Sure. Absolutely. Oh, sure. Right. Right? Right. Right, right. You know, I know you're Yeah, my co chair.

Yeah. Right. Absolutely. No, we didn't. You know, it's interesting. I think I was just lecturing there a lot in the early years before I ever really connected with Dr.

Goldman. And then, you know in, the later years of me being there, I'm I, think i'm in my 26th or seventh year, they're teaching now. We connected and met and I know super passionate about physicality, right?

Training, martial arts, all that. Right. That's great Okay Yeah, that's a great question metabolic health is the ability of your body to be resilient to have metabolic reserve, to have capacity to take stress on and maintain homeostasis or your body's ability to stay in connection as a system of systems so that you're aging gracefully and being able to perform at your best as you are aging.

Sure. Right. Yeah, metabolic disease is when the signals in your body are no longer coordinated to create health. And now those signals are starting to created a disturbance which either damages cells or starts to reprogram cells to de-differentiate like in cancer.

So metabolic diseases is the influence of what we do to ourselves, our genetics, and what the environment does to us, right? It's that combination of things that if we don't stay on top of it pushes us in the wrong direction.

I know I'm worried. My question. Why have we. Well. We eat too much, we eat, too often, We don't have quality foods. We're under a tremendous amount of stress.

we don' get enough sleep and that doesn't include our genetics or the environmental exposures that we get. So it's, I think a, a foregone conclusion when you do a bunch of things wrong, that you're not going to have the outcome that like to have, and I think that's what's happened with our healthcare is, you know, there's, I've worked on people for 40 years, 41 years.

And I have always said it's work to be healthy, but it is worth it. If you value feeling healthy. Right? That's the key, right? And so I think it's, look, there's a lot of environmental burden.

You know, as a former firefighter, you know the statistics on that and what firefighters get exposed to and the outcomes are. Um, obviously the, you know, lead and cardiovascular disease and mercury and, um, issues with dementia and Parkinson's now Parkinson, everybody used to think was a genetic disease.

And then it turns out it's only 6% genetic and 94% environmental burden. Right. So I think it really important to, to realize, I just look, just came back from Italy.

I was picking plant buds in the Swiss Alps and in southern Italy to take them into a lab. And we're talking about different ways to extract plant stem cells, all this stuff.

Bottom line is they don't allow things to be sprayed on their food. They don' allow chemicals to b deployed on there, on our soils. and I think, and they also still sit outside and have a really lengthy dinner and talk.

There's a lot of things that. Really, it was amazing to go back there and feel that because it's a lot of stuff that we just don't do anymore. I'm surprised we're talking, we should be texting each other during this, right?

I mean, I think it's unfortunate that we don't allow people to, um, We're not embracing our, our folks as they get older, kind of isolating them. You know?

And if, if anybody's heard me on a podcast before, or I've always told the story of my, you know, my father, duodenal adenocarcinoma, very rare cancer, had a Whipple surgery at the age of 79 came to live with me.

That surgery you're going to love about one or two years. He lived 13 years. He live 13 because he had a family around him, he a grandson that he looked forward to seeing every day.

And I personally, it's easy to read the Blue Zones and understand that cultural aspect, but to really see that firsthand, is pretty amazing. Right. Right right.

What. Well, first of all, I think any movement that is going to help protect people's health is a movement in the right direction. I also think that there's a lot of really good healthcare providers out there that are incredibly knowledgeable in this area of what I call integrative, functional, longevity, health, right?

I don't think they're being tapped on enough to participate in it. I think that's a lot. There's to me, there's still a of a movement of, you know, more of in like influencers, nothing wrong with influencers that because they get people to wake up.

Right. But I when you start getting into talking about, what are you going to do as a program? What are going do is a plan. What are the, you know, there's a lot that has to be done yet programmatically to create education, to get more people involved and knowledgeable in this field of how we do prevention.

But I'm a big supporter of, we need to make America healthy again. You know, I think I know for myself. I mean, i've had very big clinics. My, my Institute in Ohio that I had three physicians I worked with nurses, you name it.

OB-GYN and we, we have a lot going on imaging, We're busy. We just busy trying to help people get well. So we don't have a lot of time. I mean, I literally up to two years ago, devoted zero time to posting or doing anything because I was just really busy writing books, educating and trying to do what they need to, and then I've just finally, my son actually, when he graduated from college, came to work for me, I should say with me actually.

He was like, dad, you gotta get out there and get posting. I mean, one of the people that are writing all the books and teaching people, get some of your wisdom out, there.

And so that was the, ya know, that's one the reasons. We can't take two or three hours per person We're never gonna have enough time to see people. So we've gotta become more efficient at how we're helping people to come to decisions.

And we gotta figure a way to motivate people, I mean, there's a lot to unpack there, you know? Right.

Defining Metabolic Disease and Environmental Burden

I have to agree with you there. I mean, you do. I'm going to the FDA PCAT committee hearings to testify in regards to peptides. I did that to, you know, the last time I, did it this time, I provided a lot of information to law firms that are collecting information related to Department of Health and Human Services.

You know, because we had monographs written on peptides with the International Peptide Society with all the full text references. You have to lean in some you may not be able to do it all.

The way because you're busy. Maybe you got children at home, whatever the reason is. But I think we all have that responsibility to try to help people, right?

And I, so I thing, you know, that's, been kind of a, as I move, I guess, into my later years now, now that I'm fully a senior citizen, uh, y'know, like I've gotta try and commit more time to that next generation, Yeah Right Yeah Well, you know, that's why I spent most of my time, 20 years almost teaching at the College of Medicine, College Of Pharmacy, University of Cincinnati, was on faculty at George Washington for several years, or the New York State College Chiropractic and Oriental Medicine for a couple of years.

But I mean, I wrote databases that were American Pharmaceutical Association endorsed, like here is the evidence on these compounds. Cause I think that's where it, it always got sideways is that you had these two sides battling going.

There's no evidence, right? The conventional medicine was there's, no, evidence. And then the, the natural compounders would be busy or, you know, natural, I would say, advocates would saying, yeah, but your drugs are poisoning people.

I mean, there'd never be this common ground. That's what I kind of. wanted to do is establish that bridge is that you know what, there's value in modern medicine.

You know, if you were a paramedic, you are going to say somebody's life with echinacea when they, when you're pulling them out of the car, right? So, I mean, it's really important that we value each other and we see the continuum of care that, self-care and I hate bringing it up, but when I talk to docs, The first thing I say is, you know, I can name any four drugs and you can't give me a single study on the four of them being given together in a clinical trial.

So we're all swimming around in this fish bowl, trying to figure out how we are going to get people well. And the body is very complex. And that's why metaflammation is so such a damaging, you know, thing.

Once it starts to occur, once you start lighting that fire, You have to figure out how to push that. Fire and extinguish it before, people really start to get harm to their, to your health.

You know? Yeah. Yeah, you know, it's interesting. I never, I've had a lot of people that have come to me over the years or the facilities that I have, organized and you, know I don't know whether they're Wealthy or not, right?

But I do know this. If I don't correct their insulin resistance, if I Don't get their glucose down, If they're making a bunch of bad actor lipids like lipoprotein little way, pull up a protein B if their kidney function is fault, faltering, and

that means they got a lot of oxidative stress.

if they are immune system, their neutrophil lymphocyte ratio is off. I can give them all of the here. I need you to do this cold plunge. And once you do the sauna, I want you.

These stem cells, and once I do these exosomes, you know, now I went to these peptides, which I think are all kind of valid when they're done appropriately and in sequence, but you still have to create foundational health with people.

The one thing that everybody has to is eat and drink. You can't get around it. Well, one time when I was working, I, was, uh, going to Arizona, working in a clinic and there were some people that are called breatharians.

And I guess they got around eating. They were breatherians, you know, they just breathed in and got there, got their nutrients. But I saw them in a McDonald's one night.

So I was like, I don't know. I wasn't driving by, saw him there. And I said, yeah, that'll make that work. But my point being is I think you've got to get people to understand you're going to have to establish habits.

There are no, there are not shortcuts. Now I'm not talking about an injury, right? If you have an, you know, labrum tear or you want to do PRP or do some sort of biologic therapy for that kind of stuff to repair tissue, would still argue you will repair better.

The better your biochemistry is aligned, right? The healthier you are, the better, your metabolic reserve, that better. Your chance at repair. So that's where it starts.

And that means where's your gut health at? Right? I mean, if, you know, all of us that have went through kind of the functional longevity, anti-aging movement, understand the value of gut, health, why we need to get that gut permeability under control because of its relationships to autoimmunity.

And then you have to look at hormones and it's not just about your sex hormones. It's what's going on with your cortisol curve. Are you, are you stressed out?

Are your sympathetic dominant? There are some of these most basic things. I think we don't emphasize enough. And a lot of times those wealthy folks you were talking about will come into at least our clinics with four pages of an Excel spreadsheet.

Here's my peptides. Here is my hormones. There's, my powders. She was my pills. And, but yet I look at their labs and we go through them, go threw them with the docs and it's you know, you're still insulin resistant.

Yeah. So that's for me is why it is important that you still got to create foundational health. I think that is one of the biggest things I try to do for people is try and motivate them to, think about, stop thinking about what you don't have and think what about you get to have.

Right. Yeah. I mean, I think you need to look at lab values, especially if you're going to apply any therapies, but it also is a great foundation. And there's a lot of different labs that you can do.

Obviously, if someone was a firefighter or a first responder, I do education with Special Operations Command. Actually, the last five years, almost monthly.

So people get exposed to things, so you're gonna think about maybe I gotta test for exposures, make sure that's up, but for most people, you need to get things like glucose and insulin and hemoglobin A1C and more than just cholesterol, HDL, LDL and triglycerides, You have to an advanced lipid panel and you've gotta look for oxidative markers like homocysteine and C-reactive protein and adiponectin, colectin-3, Look for a big enough panel, including thyroid hormone and antibodies to thyroid, morning cortisol, serum, maybe a four point celery cortisol if you can do it.

But in the end, you're trying to get a complete picture of someone the way I did it when I first wrote the book, Cracking the Metabolic Code. And this was before pattern analysis was kind of cool.

I wrote about pattern analysis, you know, your adrenal glands and your pancreas and you're thyroid are kind of signaling each other. When your cortisol goes up, insulin goes, up your blood sugar goes you up and now your thyroid hormones start to go down.

So that's a relationship. And then you have gut immune brain. It's another relationship that occurs. So I really think that, you know, that was one of the biggest things for me was that I understood patterns.

I saw enough people and you. Look at labs in order to see patterns now you can see those patterns in symptoms as well. But see, sometimes people have a lot of symptoms, right?

Man, man, I'm gassy and bloated. I crash at three PM. Um, craving a bag of potato chips. When I get home at night, not thinking clearly, Right. Yeah. And then they get a lab test and doc goes, Oh, kind of okay.

but that's because those lab values weren't outside the markers of normal. And we weren' t looking at lab value as trending analysis. We weren t look at values as a complex of things together.

So if your blood sugar is 95 and your kidney filtration is low and you're blood pressure is slightly high and lipids are off and insulin is elevated, well now all of a sudden you are pretty insulin resistant.

versus just having a glucose, it's 95, right? So patterns are really important. That's why you test. And that's what you want to understand the whole person and not just an individual lab.

So I love where you're going with it. It's almost like. Yeah. If then, then that. You talk about. I'm the body. You know, it's pretty interesting. You look at Chinese medicine, five element theory, right?

If you modernized Chinese five-element theory it was kind of like a systems of systems, one system signaling another. We got into patent medicine, you know, in the mid-1900s, right?

No, hey, your sick, take this, get better. If you have inflammation you take an anti-inflammatory. But we didn't look upstream or downstream to understand what was going on when you did that.

And that led to polypharmacy. I'm not saying anything controversial. It's one of the most important topics. When you talk to clinical pharmacists is poly pharmacy.

People want too many medications. One medication is trying to treat another symptom. that you're having. And now that's creating another complication, right?

So when you don't look upstream or downstream or look at a pattern, you, fail to kind of recognize that maybe if I, if got to the root or the people say root cause, I'm a root causes guy.

I rarely think that there's one thing, that is typically going on. So I think that, you know, that's where modern medicine kind of took a turn, but you, know that all changing now, yeah.

You got Stanford saying you're only as strong as your weakest organ. We're understanding the impact of genetics and epigenetics and lipidomics and how all that expressing now.

And we're seeing art, there's a lot of scientific publications now like the relationship between the gut, the kidneys and the heart or the brain, The gut.

and sex hormones. Yeah. So that, so there's this pattern recognition is now being written about that organ systems are signaling each other and that the immune system and the nervous system is probably the, the real kind of, I'd say the wiring, right?

And then the organs and tissues are responding to all that.

Foundational Health, Labs, and Root Causes

And it's, and so we got to look at it and go, okay, what's the puzzle look like? Yeah, when I was. Right. And the amount of. Nephrologist, they got it all going on.

That was right. Right. 100%. And what we fail to do is, so one of the big databases that I wrote with my team and give my Team credit, uh, was drug induced nutrient depletion.

So you give a drug. And so you think if I take this drug and I don't have an allergic reaction or my tongue doesn't swell or, you know, my head doesn' hurt real bad.

There's no problem. But for example. Hydrochlorothiazide is used for blood pressure. Hydrocortiside, yeah, it depletes potassium. Drink a big glass of orange juice.

So you're going to tell somebody, and when do we give hydrochortizide? People that are pre-diabetic and are renal hypertensive, have them drink a full glass orange.

Right? Get your blood sugars up. But more importantly, It deplete magnesium. And when I used to make my pharmacy students do, as I'd make them write out the signs of magnesium deficiency in the body, then I would make the side effects to hydrochlorothiazide.

And then back when you had acetates, remember how old I am? Yeah, I'd make them layer them over each other. It was amazing how often the site effects of the drug correlated to the nutrients that were potentially being depleted by the drugs.

And so, and it always is, it's perplexed me that we don't make that a mandatory piece of drug discovery. Like when you're doing new drug, discovery, because vitamins and minerals are an amino acids are essential to our body.

So if you are depleting them. You're changing the way your body's enzyme systems are working. No wonder when your on eight different drugs and you depleted all these nutrients.

that the problem happens. And two quick examples, I don't wanna belabor it, but oral contraceptives in women. Women are now finally being told you should be on folic acid for six months after being on an oral-contraceptive, or you have an increased risk of a birth defect in your child.

That's because folate and a bunch of other nutrients get depleted by oral contractives. It's not just folates, it's bunch. So that's a big one. Right?

And, you know, the other one is, uh, everybody's using, You know the ant and acids, right? So the proton pump inhibitors depletes magnesium, vitamin D, calcium, protein B12 bones get thin magnesium gets depleted.

You get muscle cramps, but none of that comes out. And you don't get a black spot by black box warning on that till after the drugs been out and now all that stuff starts showing up.

So I totally agree with you. That's an algorithm based solution that doesn't look at upstream or downstream effects enough. No, no. Yeah. Am I salt sensitive?

Not salt-sensitive, right? Oh, sure. Yes. Right. Right. You're using it. Exactly. A hundred percent. Yeah. Well, you know, one of the big ones that I always talk about when I'm educating is, uh, renal failure.

So before, when someone's going into reno failure, a nephrologist will give sodium bicarbonate tablets to alkalinize the urine. and it spares the kidneys so they extend the time to when they need to be on dialysis.

Well, why aren't we alkalinizing their urine earlier by making sure they're eating vegetables and getting plenty of magnesium and potassium, which is gonna alkalineize them and help their blood pressure and all the good things that magnesium in particular does.

But we don't think that way. We wait until, oh, we'll do some sodium bicarb at the end. Something as simple as the pH of the urine Nephrologists know this, you're trying to neutralize an acidotic pH, because when it's acidic, that's excess hydrogen ions, more free radicals, damaging your kidneys.

But we wait till end stage. That's a disease-based model. And once again, I happen to think that, you know what, if somebody gets in big trouble with their health, they get in an accident, trauma, major illnesses, You're probably in pretty good shape here.

We just never developed that other side of the continuum, which is sorely needed now. And I think everybody's realizing it. Right. Oh, right. Yeah, exactly.

Yeah. So, you know, what we're talking about is. Right. But it comes to the medical. Right. Oh, I think it's critical because I. Think it just makes them a better provider.

Even if they're going to stay conventional with their medical therapies and just prescribe, they'll be more equipped to understand, you know, what's going on by understanding those metabolic pathways without a doubt.

And I, think. It's important to. Understand that, When you learn about metabolic pathways, you learned about nutrients that are essential nutrients, that you can test for those nutrients and that should be part of that equation as well.

Yeah, so I mean, I think if you want to think of free radicals, think about them as the rate of rusting in your body. And you know, when you're throwing off electrons, basically, your bodies trying to have hydrogen ions and electrons.

When you are throwing of a lot of these electrons like, for example, in you mitochondria. So in the powerhouse of your cell, you have an inner mitochondrial membrane and an outer mitochondrical membrane.

And your body goes through what's called electron transport in that cell, right? To make energy. It's call the electron transfer chain. And every time it carries an electron, it shoots off some energy for your cell to use.

Well, the problem is, is when the mitochondria get damaged, those electrons escape and those damage your tissue. So you can think of it as, you know, like it's something that's good.

Our body really can't generate energy without Oxidative stress. It's just, there has to be a balance and that's called redox poise, oxidation reduction reaction, balancing that transport of the electrons.

So they don't leak out and don' create damage. And then the problem is, is that chemicals can do that. Your diet can. Even your own hormones. I mean, the most damaging compound in your body is insulin, but it's also the more valuable.

Right? So I think it's important for folks. So what's going to help to neutralize that? Well, not having big spikes in your glucose, right? Postprandial hyperglycemia is still the number one reason for heart disease.

Learning how to eat, maybe you're using a CGM, little glucose monitor to learn how do I balance out my glucose better? Am I sleeping well? Am I under stress?

What's my resting heart rate? Like am I taking deep breaths? Because sympathetic stress induces more of that kind of cellular behavior. And so, you know, how do you neutralize it?

You neutralized it through exercise, but not too much, right? Hydration. eating foods that are rich in color and

dense in nutrients, but not necessarily calories.

And then I really think one of the most important things is learning how to not be in sympathetic tone. Don't look at your blood pressure. Is your pressure still high at night?

You should be dipping, you should a little higher in the morning than you are at nighttime. Your resting heart rate should below 62 ideally, right? And that's why I think you start to neutralize those things.

And it's just understanding How, how do you start to move down that funnel of metabolic inflammation, right? Like what is, what does the process and then that gives you the idea of, well, can I reverse back up that, that final and get back top where it's homeostasis and health.

We can go to the fancy stuff like methylene blue. You want me to get going on that? Like your life and a and yo PQ Q. Yo, let's just jump in. Let's go.

Oh yeah. All that. You know, like, now you got people that are taking it too far. Foods, the animals that aren't in there. Right, right. We're now, it's like the amount of that one.

Oh, a level of. Yes. No, it's not. I mean, I'm big on the exposome, right? So I've taught on how to detoxify people at A4M for the last probably 25 years, because pesticides, metals, we know they're there because you can test for them.

And we do know the heavier you are, the more toxic you will be because it does store in your fat cells, like you said. And so you have to become more proactive in our world today, right?

So saunas are a great way to, you know, literally get some of that out of your tissues. And, you know, people will debate, is it a traditional finished sauna?

Is it wet sauna is at a dry sauna. You know what, if you're sweating, You're probably going to be getting some stuff out and any type of heat, whether it's heat with moisture or heat was dry, that's stressing your sympathetic nervous system and conditioning you is probably good.

And I think that over the last few years, some folks have finally come to that conclusion. But you are going need to take things beyond just eating some blueberries and You know, and getting some spermadine.

Right. Sure. Yeah. What? Right, but you know what? A lot of a lot. Yes. Sometimes they end up. Correct. So what are some, right? Yeah. Right. Yeah, I think the first step is, is you know, if you have a lot of environmental burden, you probably need a fortified baseline status.

Like, yeah, where is your liver at? Where's your kidneys at Do you have an acidotic pH to your urine? So you correct pH, you support the liver so that it starts to improve bile acid release.

You add fiber to make sure that you're starting to be able to bind things with fiber. Things like guar gum does a good job of that. But then you can take things that are active to You know, compounds, things like Corella, cilantro actually do a pretty good job of binding to, you know pesticides and metals.

If you want to go a little heavier duty, obviously, under prescription things, like DMSA works very well. And then of course, there's, IV protocols that are done to also help people to detoxify.

Um, but for me, it's always important to support the organs of detoxification. So when I, I never have wanted people and I've never taught it for people.

It's like to feel bad when they're detoxifying. You should try to support your organ system so they can get rid of this, uh, these things relatively easily.

And if it can't, then that means they're overdoing it and they should probably slow down, create more support, be working with a practitioner or not trying to do it on their own, especially if they were feeling rough and unstable.

Cause you know, when you're trying push these through the liver and the kidneys and, and your skin, um, your gut, you, it, can be pretty dramatic if, if you if your not equipped.

Oh, herxheimer, right? They can, they can do that old hercimer response, which will get them very, very sick and very upset, especially folks that have, you know, vectors, lime and, those kinds of things are, chronic inflammatory response syndromes, environmental burden, and even things like metals.

I mean, I remember in the past, one of my docs, when we were in our Cincinnati Institute, she was big on doing a lot of IVs and Well, every once in a while you liberate a little bit too much mercury or metals and somebody they'll feel foggy headed, you know, unstable, maybe get some headaches.

And I've done research, we remember doing research with using suppositories, EDTA suppositories. We did a clinical trial and you The, the IRB was you had to do it every day.

Well, people got kind of achy, you know, and we weren't allowed to. Supportive nutrients. Cause you were doing a study specifically on that, on, that EDTA suppository, right?

That's right. Right?

Detoxification, Oxidative Stress, and Recovery

Right. That's right. Yeah, yeah. I mean, I think one of the things you mentioned, like using NAD, super popular right now, right? N80 plus super-popular, great therapy.

But at the same time, if your mitochondria are damaged because of, you know, environmental burden, or maybe you're just insulin resistant, we know people that are insulin-resistant or people with diabetes have less mitochondrion.

They're not as dense. they have more ragged mitochondrial. So you go and you add an AD to try to make the mitochondria work harder. Well, all you're going to do is throw off more electrons and create potentially more damage.

You might not feel better. And so that whole aspect of repair some first, get them sound is important. I know for us, I mean, over the years, because, uh, you know, when I had my clinic in, in Cincinnati is pretty big Institute.

We had a lot of, uh, four times the national cancer average. So we had fair amount of patients with cancer coming in. And, um, you know, You don't want to push them hard.

You, want. Build them up, support immune function, make sure that what they're going through their treatment, that they are not going to get secondary infections, but they were going be nutritionally sound.

And then as they're moving through their treatment, be able to gradually detoxify or work with them. So it really depends on the individual. That's why it's so important to understand where they are at in that position of what I would call in homotoxicology, which was Dr.

Reckwig in the sixties when he wrote the book on homo toxicology. You know, where the sicker you are, the more it becomes a cellular phenomena, right?

Where the cell becomes sick. it's important to understand how far down that that ladder someone is when you start to push these buttons of detoxification because they may not have the resiliency to to do what you're asking that you know at the cellular level the body to Tired midday being thirsty, gaining weight.

They can't come off even that only 10 pounds. You know that, that person, right? They got, they just say, you know what? I got 10 or 15 pounds to lose and I'm working out hard and eating right.

And I can budget no matter what. That's probably glucose and insulin dysregulation going on, right? And that's pre-diabetes. Could be cognitive function.

That could be a big issue as well. Like, what are you, you know, are thinking clearly? Because remember, dementia is type three diabetes. So the early warning signs would be, oh, I'm starting to feel foggy headed.

I am not as clear. And gee, when I eat ketogenic, my mind actually feels clearer. Well, yeah, because you can't use glucose. Right? So I think that's the other piece that I, I mean, when you start to, listen to people, you know, it's okay.

So you don't utilize glucose. Well, your gaining weight, You're feeling tired. You kind of thirsty. Don't have as much energy as you think you should.

Right. Cause typically when your insulin resistant, losing that capacity to make 32 packets of energy with when, glucose comes into the cell. Now you're only making two packets.

And you got a lot of waste product. You got to lot lactate and pyruvate. And when you, and that creates an acidotic cell, which then creates the transformation of the DNA, the mitochondrial DNA to make a cancer cell.

So people with insulin resistance and diabetes have higher rates of cancer. Right? So if I'm fatigued, easy, achy, don't recover from working out a of lactates.

Another thing you may not be thinking about. Well, I think it's all in one continuum, right? You have to fix the issues before you can hope to optimize.

And I like the term mastery. It's like start to understand your body and master your health, empower yourself. You can't optimize until you figure out, how do I unwind where I'm at?

And that's where a lot of people try to skip those steps, look at the world of peptides. And you would think, you know, I'd be stopping right now so I could go and do a round of peps right but that's not me.

I believe they're incredibly, obviously insulin being the first peptide, there's a lot of peptides on the market that are valuable, GLP-1's the latest example, but the point being is a lotta people just leaned into as if, oh, these peptids are gonna be my, we just keep looking for miracles, whether it's Tibetan goji berries or the next peptid, right?

And when we got it, and I belief that, Supernutrients and peptides and nutraceuticals and ivies, all of it. It's like, it's all really good. But you still have to put an order to it and you're still going to have work on your health if you really want to be healthy.

I wish it was a different way. mean, I guess I have a rich family history that my brother was 476 pounds at one point. Yeah. And, uh, you know, he passed at age 64. And my mother had dementia, early dementia because they scared her out of taking estrogen, right?

Because she was in that generation where, hey, estrogen's really bad, don't take estradiol. My father, type two diabetic, world famous chef, he was that diabetic that eventually ended up with an intestinal cancer, which is very common for people with diabetes.

So you see these things. And I think, you know, we just gloss over it because we read it as a statistic. But when you feel it in your family or you're working on it like you have, like, You see it, I know I have.

It's like we've got it. We can't be passive about convincing people that it's time for them to change. If we really care about them, we gotta figure a way to motivate them so that they feel empowered and that helps them with their

family, their loved ones, they're community, there co-workers, right?

That's how we build a community that's related to health, and how want to be better. I have. Right? There you go. Right. No, they have VO to max testing going on all over the place at lifetime.

VO two max is one of the essential things. It's going to kind of give you an idea of your level of fitness and how well you're going do as you progress in aging, right?

uh, resting metabolic rate important. Uh, and then again, if you go to one of the, the performance health and longevity centers, then the auras, uh they also do lab tests, right?

They want to look at labs. They wanna see where your hormones are at. I want see what your nutrients are out. Where's your blood sugar? Where is your insulin?

So I think we get dismissed. And I don't know if see this, but I know for me, looking at a lot of people that were, you know, pretty elite athletes and you'll, what's funny is a of the lead athletes end up with a higher percentage of them end being diabetics.

You know there are people with diabetes since they age, right? And they have other issues like cardiovascular disease because they pushed themselves really hard and didn't recover enough.

So it's that aspect. What I really like about, um, you know, what lifetime is, has done is healthy way of life. They try to emphasize recovery is important.

Get in that sauna. There's yoga, there's Pilates. You can stretch, you, and I think those are the things that are, that, are really important because I.

If there was one thing I, I've learned over the years, it isn't how hard you train. It's how well you recover. And that's whether I'm working with a world-class hockey player, NBA team, uh, no matter who it is.

You gotta learn how to recover better. There you go. Yeah. Got the compression if you want it, you name it man. Well, that's why you're still looking good, feeling healthy, right?

I mean, I think that super important. I I know I over trained. It's a lot of stuff I do for recovery like like I'll do my. Sure. You use a pulsado. Yeah.

Pulsado is great, Right? But I use it. Well. it's better than getting shocked, Do a little bit of breathing, probably do a bit like box breathing. Yeah.

A little brain tap, right? Absolutely, man. I got, you know, sometimes I've got two or three things on sometimes four, because I'm always checking it out.

Well, no, I think that's what we, um, what I have found is that people don't understand how important that recovery site is. Cause I see a lead athlete to break.

And now all of a sudden the answer is, Oh, I'm not getting to the puck like I used to. Well, that's because their nervous system is now, you know, worn down.

They've lost their coherence, right? So brain coherents of the brain telling the muscles where to fire and they're elite. Right there, there there. That's the difference.

If we brought somebody in here, we, line up four people and they're elite. We think who's, the elite skier or who the. Basketball player. I mean, you're going to measure their, your, hands and their arms.

You're gonna think all this stuff up, but in the end, what it really is, it's. The ability of their nervous system to recover

from the workload that they did the night before.

And we learned that when we worked with Corvette race team, so we had them swallow a telemetry pill, had him race around a track and we saw as their core body temperature went up, the reaction time was off and then they would, their track times had falter.

So then we work them up. Clean them. Did the whole program. Look at their amino acids, vitamins, nutrients. Hey, you got any exposures, clean all that up?

And then, we use something that worked to decrease microglial activation. We developed something called synapsin, which was a nasal spray, yeah, well, I developed that.

I'm the developer of that, come on man, see I had to give you a surprise. Right, that's right. Right? No, you're not abusing it. I've been doing it for.

25 years, I was the end of one. The first person to do it, but we theorized it and it was this crazy story. But everything is just. Yeah. A lot of people feel like you feel on it.

I'm going to tell you an overwhelming majority about 86% actually. We've actually on a lot. Folks we've surveyed. So he comes and says, you know, this is ginseng aside our three, and he broke in English, good for the brain, Good for The Brain.

And I go on. Yeah, yeah. Okay, great. Busy. Got to teach. You know I didn't really pay attention. As a little bit young and arrogant to be honest, I am busy in the college.

on researching for, for the next three years on what do you do to quiet microglial activation? Because my doctor had a spectrum disorder clinic and micro glial in my Institute.

So that was one of our, you know, one. Um, verticals that we had. And so I'm looking at it going, I got to figure out micro-glia activation. I keep coming up RG three, R G three.

Yeah. Look behind me and I still have the bottle that he gave me. But it was in solid state, and it so expensive, you couldn't make it in a pill. I mean, there'd be thousands of dollars of pill, so a compounding pharmacist myself, we figured out how to solubilize it.

We were the first ones to soluble it, And then I tried it on my, my myself. I was like, wow, this is really working pretty well. And, then we started utilizing it and seeing just what you did executives.

They got rid of that midday. Can't make a decision after 3 PM, right? I'm foggy headed. Tired. My brain's not working. Um, I thought sleeping well, Well, then the Corvette race team thing came up and I thought, you know what?

I think we're going to try this. So they would race around the track. They would do ginseng, a side R three, the synapse and spray when it got in the car.

And they'd run around and guess what happened? Core body temperature didn't go up. Reaction time stayed stable. It went in one Lamont. And, and then from there, I've used it on all kinds of applications for helping athletes get over their TBIs to exactly what your desire is.

Peptides, Synapsin, and Performance Support

And why I use it is, you know, 66 and I got to get up on stage and lecture sometimes six, eight hours straight, And I gotta make sure my brain's still percolating pretty well.

I honestly believe that is probably the reason why, uh, think I'm, um, still firing pretty good at my age is a, is that RG

three now. I also, we recently came out with an RB1-RG3 combination that's in a chewable tablet.

It's a liposome, solid-state lipasome that you could chew that is pretty interesting. That's Synapsin and Synapsein Pro. They're both, they're, both chewables.

Chewable tablets, yeah. I don't ever talk about stuff I invent. I'm sorry, man. We're an hour into this show and I am just starting to talk to you. Sorry, I've invented a lot of stuff.

That's right. That is no, I, no. I mean, if you remember thorn research when they came out with catalyte and elevate and all those powders for performance.

So I developed those and, and I'll tell you when it's hot. If you want to know when, it really cool. Cause you love, you like to work out. There's one that we, we put this, uh, 98% solidricide from rhodiola, right?

98%, usually it only 5%. This is a 98%. It's called land kind. And that came out of France and put it in that liposomal delivery, the chewable lipisome, poly layer lipasome which has a hundred percent absorption.

It's been studied, you know, that the very first time you chew it up, do some sort of endurance or HIIT workout and you will blow that workout away like you've never before.

Very first-time, I promise. I absolutely know it'll be that effective that quick. Yeah, enduro too, that's called. Yeah, it's really, I mean, have a blast.

I love formulating. It's so much fun to look at. Remember I told you when I went through pharmacy school, we're extracting stuff. Never lost my interest in extractions and things that work, though.

Passionate about things work. People feel them. Yeah. Well, I never talk about it. I gotta be honest. II'm always a little shy about like the invention side.

Don't know why I just I'm, you know, don't want people think I like, oh, hocking something, Yeah. Yeah. Yeah, yeah. That one's interesting because you can run it in in like 20 minutes, right?

And you don't get any of the chest discomfort. The only thing I'll say about NAD IV is, you know, people with addictive issues. It did in depression. clinically, if you were using, you're using it in your practice, and you are seeing it work.

So I think I, but I. It brings up that point of sometimes things work when there's illness or imbalance, maybe it's not as good when you kind of imbalanced up.

You're just wanting to hold yourself in that state of optimization, right? Not as dramatic as stuff. Maybe, it maybe a little more of the N R you know, oral stuff on a regular basis.

But when really tap that dopamine down, And you need that, you know, any DIV that hey, that that helps like refill that tank. As you now, there's too many people have said they've seen benefit from it, but I do agree that I'll give you another example.

Everybody thought metformin was amazing for people that were anti-aging, right? Metformins, everybody take met form and met for me. Remember? Well, then they found out that yeah, metformin is great for pre-diabetes and diabetes because it lowers, you know, lowers blood sugar, helps the mitochondrial function, but in the well population, it actually prevented putting on lean mass.

So the big proponents for that kind of backed off when they kind started seeing that happen. I kind thought that was going to happen because the one thing I saw, even in the early studies on metformin and I think my form is a great drug by the way, you know, the pleats B12, uh, which you should, if you're on that form, and you always have your methylmalonic acid levels checked every six months, cause they could end up getting peripheral neuropathy.

But the, but the reality was it showed that you could get ragged mitochondria. If you're on metformin for a while. Now that could just be because it depletes Coenzyme Q10 too, which is pretty important and mitochondrial health.

So I think it's big. I Think we have to understand sometimes things work when we're trying to get people back to, like you said, they're kind of chronically unwell and you trying get them well, you know, using a little more dramatic stuff.

And then maybe when they are well we need to have more nuance to what we are doing. Oh, yeah. That's pretty rough. Yeah. How long did you feel off from that?

Wow. Wow, it's powerful, man. I really am serious. Sure, of course. Right, right. You and I think so, we're so similar in our philosophy on that because I, I I sometimes, you know, it's that old story of, we're pulling out a double barrel shotgun to get the fly off the wall.

And you gotta be real careful about that. Cause you know, you might get that fly, but you're going to have a lot of repair bills, right? And your body's the same way.

You got to be careful. About when you were inducing these high oxidative therapies, um, just gotta to careful what you doing. I've always been more about trying to give people to, I look in the end for me, the big goal is I just want people to wake up in a morning and, and they, they have this one thought.

I feel good today. Yeah. Feel good. Today. And here's the way I need to eat. Here's a nutrients I'm going to take. This is how I want to learn what I needed to do for my exercise.

and I I sleep good at night and yeah, I've got to have stress in my life, but you know, learn some tools, how to cope and It's not this living a life that's, you know, I got to do this.

I gotta do that. It got a do. This I've got. To do, that I don't have my Faraday glasses. Well, got one foot in the cold plunge and one in a sauna while I'm getting an IV, right?

I. Don't want that talk about. Oh yeah. Right Oh, yeah Right. Yeah. Right, right, later. Oh, uh, without a doubt. I mean, I know people that, you know, wear a whoop and the, they're freaking out about your sleep.

Never score high on my sleep ever. Cause I never sleep more than seven hours. And I sleep deep and I feel rested when I wake up, but they got that data set at seven and nine.

So I'm only going to get the 84%. We're going to throw them away. We can't do that. Okay. Yeah. I like my I got my ultra human. Oh, no, I haven't even seen one of those in real life.

This is like this is seeing like a Rolls Royce Phantom or something man. Wow. That's beautiful. No, no, that's a fashion statement right there. And you get some value, right?

You get value. That's good. Right. That's correct, that's right. Is that score in the morning? I think, I, think it's really varied. I'll tell you. The other thing is, is I.

Think a chest strap is much, much more accurate for readiness and HRV. Cause you know, when I look at my HR, V I used to get, i'll, tell ya how I figured it out.

First get the ring and then I get this and I'm looking at. My HR V and i'm going on, wait a second. Pretty fit. You saw my workout yesterday. He'd go, you, know what, for an old man, he's got it going.

All right. So then I got a Morpheus strap and then, I, got, you know, cause it's got the one lead, UKG, or you get, can you pick it up? My HRV is in the seventies and in low eighties here.

It's like 25, 30, my Apple watch when I was wearing my apple watch is telling me I'm going to die. Cause my heart

rate variability is so low. Now I didn't freak out about it.

Because I knew I felt good. But you're bringing up a really important point. These kind of tools are meant to encourage you to do better, but not to freak you out.

And if, if you start going down that path, you have to rethink about, Hey, this is giving me information. It helps me to be better. But if I feel good and I know I'm doing the right things, well, maybe it's.

The algorithm isn't advanced enough, right? To be the data that's specific to you because all those other things that you're doing. Right. So I think that it gets important.

I'm not big on that. You know, I think, you know we have to rely on ourselves. Well, they think that they can isolate. It's like allopathic biohacking, right?

You know, when we criticize medicine earlier, you know it was a criticism of it's an algorithm and you're taking a drug for that algorithm. They're doing the same thing with bio hacking in many cases.

Right. They're picking a particular peptide to think that it's going to do this because it inserts here. And therefore all your, all of your little cells are going line up and do exactly what they're supposed to.

Right? Like, Oh, I'm going to take, i'm gonna take this, uh, Fox Oh four DRI and only my senescent cells are going react to it because it controls that.

Right. And I, so I think it's just important to understand your body is more complex than that you always have to look upstream and downstream. Most of all, how do you feel?

The one thing I know, because I did a lot of work with me screen and talked with those guys, and they had some of the biggest kind of biohackers kind getting those tests.

And those folks had more mitochondria issues than people that didn't. Right. Because they're overdoing it. So I think that the lesson for like to me, bio hacking, that's what that what alchemists did.

That's where that that we pharmacists. I mean, we're we were the first bio hackers, man. We're getting chemistry going. Fix what needs fixed and figure out how to keep what's good, good.

And that's where it comes into what nutrients are right for you. Do you have any specific deficiencies? Maybe after you clean up the exposome and your epigenetics, you can look back to your genetics instead of looking at your.

First and going, Oh, I need MTHFR. I needed methyl folate instead. Worrying about that stuff. Clean up how your body's expressed first, and then look at.

Genetics and go, oh, okay. I need to do this. Maybe with detox, you got to look at those, those genes a little bit, but in general, You got it. You know, got put an order to it and you know what?

Let's stop worrying about living to 120 or 180. Let, let's just try to get more people to live to 85 on less than five drugs. Yeah.

Faith, Service, and Closing Reflections

I'm now that I am 66. I want to live a really long time and be healthy. You know, it's funny because people always say, you know I remember here, I might give you back when I was your age.

Right? I remember it's like, hey, it is not about how old you are. It's how would you feel when you get to my age? No, It is about How old are you? It really is.

And you want to be functional. You want enjoy it as long as you can. But you know what, I live by this simple, very simple saying that I coined it. Even Da Vinci died.

Right. We're all going to get to there at some point and we just want to extract every bit of joy and health we can in that journey to, you know, when it's finally, time to call it a day and go to a better place.

Right? Yeah. Really quick. This is a quick fire off. Oh, okay. All right. Here goes. Can I take my synapsing? I might be. All right. Yes. You're. Peg M. G. F.

To one. Cerebral license, but probably, uh, P six C, which will be out this year. P6 C is going to change the cognitive piece. Yeah. You want to remember that one?

Copper peptide. Well, I mean, PT 141 is going to give you that neurologic arousal. But I like kiss pepton. Kiss peptin because it helps the amygdala for women, you know, that like releases the inhibition and, yeah, kind of helps dopamine and reward.

I'd say GLP one. Yeah. Well, metankephalin, opioid mechanoreceptor, or KPV. Unless it's neurologic, then it would be ARA290. Uh, obviously GLP ones are good.

If you're a woman, AOD nine six oh four, I think works incredible. It seems to work more on women than on men. Um, yeah, like in general, the GL P ones you going to be the, you know, or, when we say GLT one, that includes what's coming out soon from Lily.

Retatoo tried, which is kind of a triple agonist going be a monster, but might be biologic. We'll see. Right. That's what they're shooting. Uh exactly.

Yeah. Well, see what happens. Okay All right, okay Okay, I got to What have you done recently for someone else Today I was at the airport and a lady was carrying a kid wheel in two bags with an extra bag on top and her nine year old daughter was pushing a bag too big for her.

And I stopped and got off the bus. I went and I said, can I help you take your bags to where you're going? And. Walked her over to her Uber and so she could just worry about carrying her baby and could take her bags for so that's what I did recently.

So. When was a moment that you were most afraid? You know what? It was when my brother was in the hospital with a renal liver and pancreatic failure. My father was Diagnosed with his duodenal adenocarcinoma and getting a surgery so I was running between hospitals and my mother was already in a nursing home with dementia and That's all I had like I came from a family of four and we moved around a lot as a kid I I wasn't four grade schools by the time I as an eighth grade right three cities four great schools And it just hit me like man my core of who I am is going away.

That scared me. How do I stay strong? I have tremendous faith, you know, have a tremendous, tremendous that I committed when I was 21 years old, I kind of had a rough patch and I got out of it.

And I kinda committed a life of service to, That's why I wrote 26 books and five databases and nobody heard of me. And except unless you were a doc going to a training, nobody hurt a general vow till two years ago.

When I started talking, um, I stay strong because I have a strong belief that, you know, God's by my side. Yeah. If I do the right thing and just try to help others, just like my lady today, know what?

You're going feel pretty good about yourself and you're, and your going be strong. The last question. Well, I think your faith helps you whether you are going to heal or not.

You're either going face the consequences with assuredness of what's coming after, or it's going help you to feel either way. I Think like faith, something like the belief of something bigger than you and the importance of touching

others.

But I, think that's what pulls us through everything. And I If I had, uh, you know, it's kind of funny cause I'm going through this 42nd anniversary of working on people.

I get kind, I got a little choked up about it. Cause I think about, um, like I really focus when I was someone like, 100% there with them, just right there, man.

And I. I think that's why I was pretty successful and why a lot of people came to me over the years with my clinicians that worked with me, my nurses, doctors, dieticians, acupuncturists, all the folks that came around because I thought they realized that.

And I Sure. Look for joy in your life. Work towards joy when there's joy and your heart. It's hard for disease to find a way to enter your body. The real Jim will Val, you know, go on Instagram, uh, Jim without.com.

And, ah, other than that, show up at one of the events I'm talking at. All right. Well, let me tell you, I have been looking forward to coming here. Cause I know how big a message that you put out there.

So I mean, i've been excited about this for the last two weeks. Yeah. All right, pull that out of the phone. Awesome.