Neuroception - Feeling Safe in Order to Heal Transcript

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Hey everybody, Dr. Rob Silverman here, Proven Health Alternatives. I've got a superstar in the area of functional medicine and lifestyle in general. Dr Pedram Sojai, it's a pleasure to have you here today.

Great to be with you, my friend. It's been fun. Because I know I'm going to learn a lot from you today just from the fact that the information that you submitted for us to discuss.

It was kind of revolutionary. So we all know that the gut is the epicenter of your health. 80% of immune cells are in the guts. Macro and micronutrients are absorbed in your gut.

What have you done for your guts lately? Do you have the guts to be healthy? But there's a term that's being thrown around that I have to admit was new to me called neuroreception.

Could you define that and tell me what's going on there? So I found this by hook or by crook by getting compromised myself. And so nothing like a doctor who can't sleep at night.

You know, PubMed is always there. I started digging into the literature around why I was having insomnia. and came across this body of work around neuroception.

And it has a lot to do with the arousal of the system and the body's safety signaling. I had come back from a summer in Portugal where just weapons free, take your foot off the brake, wine and cheese and bread and all the things that Europe's known for, their stuff's fine.

It turns out I came back with a compromised gut lining and endotoxemia. terms that you are very familiar with, right? And as I was like, oh, that's what are there any psychological implications?

Are there are any tie ins with insomnia? and there was just study after study showing that look, if the body doesn't feel safe, you cannot relax. It's like my body doesn't speak English.

So if I just had a cheese burrito that compromised my gut lining and I have lipopolysaccharides crossing over and setting off my immune system, how is my It's trying to say, hey, dummy, stop doing that.

But I'm busy having the espresso after that meal.

Introducing Neuroception and Gut Safety Signaling

I am busy going off to my next call. And I will get it in the subtle cues of mild anxiety. You will start to feel this compromise in your safety signaling, this neuroception, if you will, and it has a lot to do with Stephen Porges's polyvagal theory.

There's been a lotta work on this, talking about our ventral vagal, our dorsal vagus, like our freeze response, parasympathetic versus sympathetic, which you hear a lot in the podcast, right?

It's like fight, flight, freeze, and then rest and digest. But our body has a subtle kind of bat phone, if you will, saying, I don't feel safe. And when it does so, you cannot produce school books when the bombs are falling.

Right? And so we end up living in a wartime economy And we try to heal when the bombs are falling and we wonder why more glutamine and more supplements and slippery elm and all the stuff we're trying to help these patients with isn't working while they are completely freaked out and stressed out about the state of affairs of the world or their system is compromised.

And so I started swimming upstream because I hate being wrong. I do not like when someone comes to me for help and I'm not able to them. Pure and simple.

Call it ego, call it arrogance as a doctor. I don't like not helping people. And so those are the ones that keep me up at night. The more I dug into this, the more realized that this is a missing ingredient in the realm of gut health.

Frankly, I had a long conversation with Jeff Bland about this over lunch a couple months ago. This is going to be an emerging body of work that's going revolutionize how we treat all types of patient populations.

I agree. It was a new concept to me, somebody who purports himself as a gut guy. I got my butt kicked, I own up to it. As I told you before, he has five real good practitioners and it was new theme to them.

So this is going to be without question a cutting edge theme. And it's interesting because there was lots on box and what you said. You gave a lot of pearls.

So the first thing is your gut functions in a subconscious way. So that's hard for people to understand and it does so because it's got its own nervous system, the largest nervous with the most neurons in the body called the enteric nervous which is in aligning of the gut.

That said, you also spoke about the polyvagal theory and the vagus nerve. So we'll dial it back. Let's get into that enteric nervous system. Lets talk about it and let's see why did the man, the woman, person, and thing upstairs make our gut with the largest nervous systems in our body?

If you think about where the city walls lie and where The Sentinels are to allow for us to have safety signaling, you're gonna have scouts out where, the rubber hits the road, where we interface with the world.

And there's a few places where that happens. It's our skin, it's are mucosal membranes in our nose, our mouth. As we breathe, its inside of our lungs.

But to your point, The Superhighway is this huge pipe that goes from Rooter to Tudor, if you will, that is mild. I mean, it's a tennis court. If you lay it out flat, like it is a Tennis court in surface area of this single-celled membrane that allows for things to either pass or not pass based on whether or or our immune system says friend or foe, safe or safe.

And so that is a tremendous amount of information with trillions and trillion of players day in, day out, three meals a day, multiple snacks, coming through and communicating with our bodies through our vagus nerve, which is one of the cranial nerves, runs down, touches all the viscera, all of all, the major organs of helping us make decisions based on what we are sensing is coming in from the outside world.

Now, that used to be pollen, different phytonutrients, bacteria from soil-based organisms and things that varied somewhat, especially seasonally in the natural world, But now, it's red five.

Now, its plasticizing agents. It's glyphosate. And so we're getting a tremendous amount of information from synthetic chemicals that are also distorting that channel and creating a lot of noise in our immune system.

The example I like to use is this TSA. You know, It is a normal day, normal flight. you pass through, the guys have a good flight, you get one bad guy getting everyone stressed out, you know, the TSA guys lock everything down.

The cops are jumping around. They shut down the airport, right? And now everyone's stressed-out all day because there was an event. Now this is happening in the tsa line of your gut lining multiple times a day and you're wondering why everyone is stressed at the Airport.

You're Wondering why, You know your flights not on time. And so we are creating a very, very challenging situation in the world that we live in with the additives and bad food choices that were making.

And our nervous system is really, I mean, we're on edge. The nervous does not know if it can relax, and if can't relax it, can heal.

Enteric Nervous System, Gut Barrier, and Immune Defense

Therein I think lies the deepest part we could get into later about this theory. and the thesis is you have to feel safe to heal Wow. That enteric nervous system, that's interesting because…

I've always said that the reason that their gut has the largest amount of immune cells and its own nervous system is because it guards the outside world from the inside world.

And the conversation just got expanded in that, that is correct. That outside of the border, if you will, getting through TSA, great example, Great analogy, That border is guarded by those immune, cells, those mucins, Those globulin cells to be technical, but we'll try not to and they're sensing what's going on.

And like you said, the sensor goes off, it stops it because it's not supposed to cross the gut. Fabulous. Of course, you talked about the vagus nerve, which we're going to go into detail.

But passing that barrier, getting to the bloodstream. That implies there's a gut-immune system interconnection. So I'm gonna give you the baton and I'll let you roll with that.

The GALT, gut associated lymphatic tissue, we have lined this border with our security forces. 70, 80% to some accounts of your entire immune system is lined up on this line to say friend or foe, friend of fo.

and as we have inflammatory cascades go off, when bad guys cross, those things will send signals back to our nervous system saying it's not safe. Something is attacking down in sector 13B, right?

And so this is all just information and this all kind of run of the mill, but if you were to live in America and eat the standard American diet and consistently throw things down those pipes that are setting off those alarm signals, eventually the troops go, oh, yeah, just another deal, and they let the real bad guys cross in, or the system just gets so overwhelmed that you shut down and say, look, we're under attack.

We can't do anything right. Def Con 3 here. And so all of this signaling, depending on the resilience of the individual's nervous system makes a difference.

Look, I'd be a former monk, mind-body guy, right? I can easily be trite and say everyone should just meditate, it's gonna solve all your problems. It'll help.

But it really depends on the resilience of your system, your gut lining, you ability to perceive stress, and your ability, to withstand some of these assaults.

And I used to think that from top down, that you could resolve so many things with mind-body practices. I realized that, look, if I give someone who has sensitivities, not even allergies, right?

Sensitivities to cherries and dairy, a cherry pie, and then ask them to sit down and meditate, they're not gonna be very good at it. And so as above, so below, it's really come full circle for me saying, listen, I really need all of my patients to clear environmental toxins because they burden and stress the body and set off this arousal system and heal their gut lining so that all this arrowsal from this neuroceptive array comes down And from there, then we can start to work on these pathways better.

Then we could start making better decisions. We're not coming from a hasty decision ecology because we're so stressed out. After many, many years of clinical practice, this is where I'm seeing the best results.

So just here to report it back. It's funny, you allude to clinical practice. You've been in clinical for how many years now? 2001? 2005. Welcome to my world.

I got you, I'm a 26. How many books have you written? I've written eight books, technically. Seven fully and one was a rewrite. How many TV shows were you on while TV was important before it became all social media, podcasts, reels, et cetera?

Yeah, a bunch. A bunch, dozens. I did the parade. It's exhausting. But I didn't because I really wanted people to read the books. And so you get out there, you bang the drums.

Yeah, I've been around the block, right? I used to own multiple clinics. I consulted for 1,400 corporations trying to get them to not need me, and so really in the medical space I found 20 years ago that I was working the mass unit.

We only got paid for diagnosable illness and I had to wait for someone to break before their insurance would pay for me to try to resolve their symptoms instead of solve the problem.

That didn't feel right. And so you go get alt education and you start learning how to actually fix people's problems. Then it's the wild, wild west, right?

There's a lot of hokey stuff out there as well. So you really got to be discerning in the space of alt medicine to still remain evidence-based. Neuroception, let's do a little game New York style, rapid fire.

I actually do it and I was on a podcast and someone said to me, I'm gonna ask you some rapid fire questions. I said, yeah, let's go. So neuroception, gut feeling, synonymous?

Close enough. Yes. Because the safety signaling is where the gut and the vagus nerve touch the brain. And so I think, you know, got feeling adjacent. Absolutely.

If we got technical, I'm sure people would argue about it, but I'll say yes. Symbiosis, small intestine immune system. That's the name of the game. Symbiosis and understanding the beneficial players and the keystone players that allow for us to be good shepherds of those colonies and feed them the right foods makes all the difference in how the small intestine is either reactive or happy in what comes down those pipes.

Pre and probiotics. Both. You got to feed your friends. And I think that has been one of the biggest issues in the probiotic industry is we went over to this pill for an L model saying, well, you know, he could just take this.

Uh, what are you feeding it? What are the fibers? And so I'd think, at the end of day, how you eat means

everything, but if you're going to supplement and do probiotcs without prebiotics, I dysbiosis, you know, leveling of good and bad bacteria.

My question to you is, is it the bane of our existence? I think it's close. I and saying this is my biggest KPI, then I would say that should probably be our emphasis as well.

And so resolving high leveraged problems, and if 80% of my system was looking at one problem to solve and I had a problem there, I'd fix that first. Let's parachute into the idea of dysbiosis then.

What causes it? How would you test for it, what would do if I came in and you were concerned that I was dysbiotic? I tell you what I used to do in the old days is we do a bunch of expensive microbiome testing, figure out what's wrong and then realize everyone was a dumpster fire.

And it's a while back, I realized that that was inefficient and too expensive. Obviously we did the elimination provocation diets and put people on restricted diets for a month or two and figure what they're sensitive to.

It worked, absolutely, but it was just very time consuming.

Dysbiosis, Gut Permeability, and Testing Strategy

Yeah, but what I've done in the past couple years has been revolutionary, really, and it's not that complicated, is we just test for the zonulin, occludin, LPS, candida, the big things that lead to gut permeability.

And from there, we look at food sensitivities, because I don't care what think I'm doing for your gut. If I find out that you're sensitive and have immunoglobulin reactions to pears, then I missed that and shame on me.

And so I've been testing for food sensitivities, restricting those foods and then working to resolve gut permeability. We do that for three to six months.

Then at that point, yeah, then you start looking at esoteric things in the microbiome and you're start making micro adjustments. But I found a lot more leverage in that type of approach because it's cheap, it easy and it a finger prick versus, you know, sending feces in the mail and all sorts of things that kill compliance for our patients.

Everybody loves a poop test. The compliance on that is low, but piggyback on what you said, food sensitivities may be the leading cause of chronic hidden inflammation, especially in the gut.

It's quite unsettling. Like you say, it may cause a dumpster fire. Candida is usually implicit of yeast overgrowth. I think 97% of the funguses or yeast that grow in a small intestine are candida.

That's also associated with the dysbiosis that you spoke about. Zonulin, which was found by Alessio Fasano as a protein enzyme that pulls apart the tight junctions, the gateways, occluding as the structural damage, and the bad guy.

The anti-zoro with the mask is lipopolysaccharide LPS. So, I mean, you hit them all on the head. It's like going to the carnival and a guy swings the hammer and hits the bell.

you hit the bell. So the question is, now that we know that these things cause damage to the gut, they cause an unsettling of a very delicate ecosystem, what are we going to do for it?

And how are you going be able to improve our prospects of having neuroception? We get a saying in Kung Fu, all martial arts really, that I don't care how good you think you are, if you stand in the ring long enough, you're gonna get punched in face.

And so, If you realize that you were allergic to pomegranates or, in my case, honeydew, which I love, Honeydew melon, lovely stuff. Who wouldn't? Not allergic, I have sensitivities to it, right?

But you know, plus two, three I think, maybe. So I'm not supposed to eat it. If I had casein, if I'd have dairy, things that I know my body is telling me, my immune system is saying, hey man, don't eat this.

I don't like this, I'm having a reaction to this. Then what I am doing is I setting off inflammation and I creating problems downstream for my body, my life, and my neuroception, right?

And so again, this is a subtle point, but this an important point because as a clinician we can say, oh yeah, yeah this this and that. But if you think about how your body as an animal, and this came to me in sleep, right?

As I was up at night and I'm a seasoned meditator, sat with the Dalai Lama, I've been around the block, know how to calm my mind. I am lying there wide awake in the middle of the night going, what the heck is this?

Mind racing, right? So instead of going to the Western medical algorithm and being like, okay, do I have any melatonin? Do I any St. John's wort? Can I go find an old Quaalude?

Like, you know, all of this crazy remedial crap that we do to say shut up to a crying baby, I stopped and said, Okay, what is this? Why is the baby crying?

And I traced that back to saying, God, my system is unsettled. And I realized that I had intestinal permeability and I was eating casein and the things that were, my body was saying alarm, alarm alarm.

And in sleep, I could see it, hear it and feel it because I asked the question instead of saying shut up I got work tomorrow. But think about what sleep is.

I'm this mammal. that hopefully is functioning in a tribe where you know say the two of us are in in uh a cave we're gonna take turns one guy's gonna stand there with a pointy stick at the head of the cave and protect one guys gonna sleep and then we'll take terms why because when i lay my body down i'm gonna trust that i'll close my eyes and i am not gonna wake up in the stomach of a lion I'm not going to end up captive by a neighboring tribe.

And so it's the ultimate release into this place of saying, it is safe, you can close your eyes. Because when your sleep is compromised, its telling you that your alarm bells are ringing, your neuroceptive capacity has been compromised and you are getting signals saying, I'm not safe.

And instead of saying shut up, shut you listen and realize that that neuroceptive array has trying to talk to you probably for years, right? And that's where I think this connection between physical medicine and mind-body medicine is really emerging with this body of work.

That's why I am so excited about it. It's like, okay, we have physiological neurological basis to now understand why these individuals, these patients aren't healing.

The mind-body may be the mind gut or the gut-to-mind tie-in. It's fascinating. Like we said, the good is the epicenter of our health. The immune system and the guts are closely connected, forming a symbiotic relationship.

You said that before, where the microbiome plays a critical role in immune function. A gut with its vast population of immune cells acts as the body's largest immune organ, monitoring and responding to constantly changing environment of the GI tract.

The connection is vital for overall health and well-being. Obviously, neuroception is that sense of it. So now I'm going to set you up. you for another rapid fire.

Here we go. The gut has an immune organ. Yes, it's the sensory organ for your immune system. It's almost like the eyeball for you immune systems. First line of defense.

Great. Guts microbiome influence. You want me to fill in the gaps? Yeah, I'm going to have you fill the in gaps. Yeah. Everything. From butyrates downstream, everything.

We talked about dysbiosis and its effect. What about increased vulnerability in the gut? People come in and say, you know, my gut is healthy. How can it go awry so quick?

Glyphosate, food sensitivities, severe infections, and then followed by a bout of Cipro or something to save your life that stops, the migrating motor comp…

I mean, there's so many areas that I see people get… A perfectly healthy person goes to Peru and gets some gut bug, they get put on some thing, it kills their MMC and now suddenly they have SIBO.

It doesn't have to happen over 30 years, It could happen overnight and sometimes it happens over thirty years. But look, we deal with what walks into our clinics.

I got a buddy who watches all my podcasts and I usually do it at the end, but I want to do now and he'll say, you know what? Cypher through everything.

Give me the Reader's Digest version. Gimme three things I need to be healthier because I wanna live to 120 and die of hypervitaminosis. Uh, first thing is, uh, always, lengthen your fuse every day through resilience practices, do things that make your body feel safe, take deep breaths, trigger your parasympathetic nervous system.

And there's very, that's a deep dive, but I could tell you exactly what we know can do that. Very clearly. Number two, very simple, don't poison yourself.

You know what that means, right? Don't Poison yourself and number three rest when tired Give your body a chance to catch its breath in a world that won't stop You have to and you have say stop to the world or else you're going to overwhelm your system You're gonna be in neuroceptive hell and your never going able to heal and recover And you never gonna put on muscle mass which won get you to 120 Let's talk about the polyvagal theory.

Polyvagal Theory, Vagal Tone, and Stress Response

The vagus nerve, as you said, cranial nerve number 10, goes from the brainstem, the medulla oblongata, down through the transverse colon. People have heard me talk this before.

They call it the vagous nerve because it's a great wanderer. It's got branches to virtually everything in your thoracic and your abdominal region. We talk Most people are sympathetic and they're parasympathetic, but you're alluding to in the polyvagal, there's two reactions in, the parasympathy nervous system.

One of which is almost freezing. The other one is the rest and digest. Can you differentiate that? Can go into detail? can you illuminate that because for someone who has been stimulating the vagus nerve because of the lack of parapsypathetics, that vagal theory really was eye-opening for me.

Yeah, same here, I mean this is, again, this isn't my work. This is a guy who stumbled on another guy's work, so you and me both. But the ventral vagel, which is part of the parasympathetic nervous system, that's our rest and digest state for the most part.

When a threat is detected, we shift into sympathetic fight or flight, which is dorsal vagle, you know, the freeze response. And this is where it gets interesting.

The impact on secretory IGA, so it's most abundant antibody in our mucosal secretions. We measure it in functional medicine all the time. It's kind of a moniker of our immune defense in out gut.

When we have increased parasympathetic tone, it promotes digestive function. SIGA production in a parasympathetic activation state is optimized and our GALT, which we've already talked about, receives signals that maintain healthy SIA levels.

The TSA line is normal, everything is chill. But when we have neuroception and are detections of threat, resources

will shift away from digestion. Okay, and they're saying, look, there's a problem.

Forget about the magnesium you're pulling out of that chunk of food right now. We got a guy hopping the security line. And so once in a while that happens, that's normal.

But when you have a chronic sympathetic activation, which is pretty much everyone you know, especially in New York City, That suppresses our SIGA production.

and that prolonged psychological stress and reduced SIGA level that corresponds to that, we can track in saliva, in gut secretions, that starts to create some of the problems.

We'll get intestinal permeability. what you call you know L Diablo LPS and some of these you kind of gram-negative bacteria will have bits of them that they secrete in these lipopolysaccharides when they start crossing over a leaky gut then We are now on the blood level.

Now we're not in the gut, we are inside the castle walls and it is a full blown emergency. We will have inflammatory cascades go crazy, our cytokines go and what happens is we will then be in a high alert, high arousal state, not feeling well, feeling anxious, having insomnia and being like, hey, look, I keep trying to eat all the right stuff and take all of the supplements my doctor gives me, but I still don't feel well because we are too wound up to heal.

And that's the patient, right? Unfortunately. that patient ends up showing up more often than not because the world's getting nuttier and it's harder and harder to maintain that equilibrium, that homeostasis.

And so now, before I would have a really stressed out individual, I'd be like, all right, we're gonna send you down the hall to neurofeedback or you go do some yoga.

It was like one in 10, now it is like seven in ten people. are too wound up to heal. And so it's becoming a much bigger problem that I see clinically and in society that we need to address.

I think it is the elephant in the room. You know, you talk about fight or flight. So it could be getting pushed on a subway. Could be a car accident. It could food.

Just be mental stress. That's an overlying theme. My mental, anxiety, I want my hair to look a different way and I'm crazy about it. to something abstract.

And I get excited, I go from parasympathetic to sympathetic. My secretory IgA now goes down or up? It goes, uh, down. So suppresses your secretori Ig A.

so my anxiety is adversely affecting my digestion and can conceivably lead me to leaky gut. 100% 100%. And vice versa is my argument, right, is if you have a leaky gut, it is also ringing alarm bells and your body doesn't speak English, so now you've a mild form of anxiety because your bodies telling you something and you're not listening.

And so I think that it's a forward feeding system and we know that the brain and the gut are communicating bi-directionally. And I think that we've been very good about saying, oh, well, you know, your too stressed out and talking about, de-stressing people that have anxiety that you think is probably contributing to their gut issues.

But my argument in digging this Research up is we're not listening to the other way around right? Dr. Pedram lying up in the middle of the night with insomnia is saying no my body is telling me something and it is Feeling like insomniac and anxiety and then when I resolve the gut lining issue All of that went away.

And so I think that it's both and that is the part that I've been missing in functional medicine. I mean, conventional medicine, they miss everything, right?

But the main thesis here is that if you're not addressing as above, so below, and you are not fixing the gut lining, you also leading to the anxiety and the other issues that become a self-fulfilling prophecy, it becomes a downward

spiral one way or the another.

You have to fix it all. You know, it's interesting, we talk about vagus nerve stimulation, but the idea of the ventral and the dorsal, could we conceivably be stimulating the vagous nerve too much and slowing us down?

That was a bit of a rhetorical question, so the answer is probably yes. But interesting balancing of the vagus nerve, and it comes back to the big theme that really draws us into the idea of functional medicine.

We'll cause resolution to homostasis, this beautiful balance and this interconnection in a body communicating in an harmonious manner. There's some studies that show that vagal nerve stimulation decreases depression, Vagus nerve stimulation is at the interface of the microbiota-gut-to-brain axis, IBS, IBD going down, which is really a byproduct of dysbiosis.

Better digestion because it decreased secretion of hydrochloric acid, pancreatic enzymes, and parietal cells, bile all implicit in vagus nerve tone being decreased.

So you want to increase vagus nerve tone, but really to speak to what you're talking about, the idea of neuroception. Here you've got the microbes in the gut coming from probiotics communicating with the got and communicating the brain.

So neuro-ception is that three-way calling communication. I have to say this is quite exciting to somebody like me. Same here. When I started stumbling on this, I had a missing link moment.

I want to give an example. There's, you know, been a Qigong meditation guy for a very long time. And we know there are some anchors that can trigger parasympathetic nervous system.

We know that if you put the tip of your tongue to the roof of mouth and do deep diaphragmatic breathing, it starts to influence your nervous system towards parasympathetic and increases your vagal tone.

We know that bending your knees and relaxing your gastroc muscle does that. we also have found that the shift from focused vision to peripheral vision does.

And so I want to use this as an example because I think it elucidates what we're talking about is if I'm an antelope that just Eat some grass and I'm sitting there chewing it and digesting it.

And I got maybe a buddy behind me looking that way. I am scanning. Im doing a broad peripheral scan of this savanna and just enjoying my lunch. Then I see something.

As something starts to come, I start narrowing my vision. to say, is that a threat? Is that threat. If it's not a thread, I go back out and say oh yay.

And if it is a threaten, you're like, oh does it see me? is it coming at me, Is it a lion? And what that does is, it starts to shift my vagal tone and says, hey you know what?

We need to stop digesting this grass right now and we need maybe think about running. Hold on, let me see. Right? But then as that animal determines friend or foe, you know, danger or not, it either stays in that peripheral vision or goes, Oh God, that is a lion and it's coming at me.

And then it immediately gets up, probably poops and runs for its life. And it does not digest in that moment, and it has a very dysbiotic state because it didn't do the thing the digestive juices were supposed to be doing in the moment.

And so an animal that gets disrupted multiple times a day isn't going to live long.

Practical Longevity, Future Research, and Closing Thoughts

That animal is not going live to 120 like your buddy. So peripheral vision versus TikTok, peripheral vision versus scrolling the news. They all have to do with one another.

We are now focused in on very small places where we're getting bad news and staying in a bad-news loop about how scary the world is instead of going to some vista and looking out broadly and allowing our bodies to just relax.

And I think that's the medicine we are missing. So if I had to tell my buddy in Geneva, Switzerland, one thing, and he's a calm guy, so it may go wasted.

I'm the type AAA dude out of the two of us without question. Been that way since day one. He was, he has calmed down a lot and is matured. And I am working on it.

But I hear a resonating idea in that everybody would benefit from calming down, meditating and gathering your emotions or being in control of your motions more.

100%. And if he's in Geneva, just go to any mountain anywhere close to Geneva and climb up there and just get a nice vista and spread your vision peripheral and relax your system and look at a broad peripheral view.

take note of how you feel 20 minutes prior and 20 after. There's not a human that I know that wouldn't say, yes, I feel better. That is a direct activation of parasympathetic nervous system, increase of vagal tone, and increase in blood supply to the gut, immunological sensors, everything says, okay, it's okay.

The world is safe. And when the world's safe, you can go back to work, resting, digesting, healing and growing. So what are the long-term implications of this science?

Where are we going with it? This is the missing ingredient in longevity, right? I just came from some, I was in Austin, all these guys running around trying to figure out which cold plunge is better for them and which version of Urolithin A is going to look at them to live forever.

And they're so orthorexic about it that they are dying anyways. The good one. Listen, the chill pill comes at the bottom of your next breath, not in a supplement bottle.

And I think that that has been where we've all been duped because you can't patent the next breathe. So the market-driven forces that are driving health care on the alt side, all of it, right?

You still got empty pill bottles to make money. And I think that that business model is leading the witness and moving us away from where true health should be.

So, Pedram, Rob is going to ask you a question. We're in a coffee shop. I've got my Java, my organic coffee. And then Christa Ball says, look to the future.

Tell me where we're gonna be and what's gonna the conversation piece in health, functional medicine in the next three to five years. I think neuroception is gonna to be a central theme.

And I the integration of where our role in resilience lies has to do with the anterior cingulate cortex and our ability to become aware of multiple streams of information that are inside of our bodies.

So all this stuff we were talking about is interoception, right? Our ability sense our inner organs, our vagal tone, all these things are introception.

Extroception is our five senses, we still have proprietary perception, we have neuroception, We have equilibrioception. We've all of these data streams that our nervous system has evolved to be hyper aware of, that we've cut ourselves off of whether it's from the glyphosate or the TikTok.

And we are lacking our ability to aware, of the data stream and it is turning the lights off. And I think the lights turn

back on through us becoming more self-aware and us doing the things that keep us from poisoning ourselves to allow the system to come back online.

The body can heal itself, says every natural medicine doctor. What are we doing to obstruct that? That I thinks becomes the central theme. Outstanding.

So for those people who have their pen and paper ready, I'm going to ask you one to three things for each question. Give me your favorite foods for neuroception.

The favorite foods for neuroception and this isn't dodging the question is what we've identified. You don't have sensitivities to every single person has different sensitities and I'd be damned if I were to guess cause I've always seen crazy stuff come up.

It's like Betty's alert. Betty has an issue with tomatoes and honeydew. So I think it's individualized. I'm not answering that globally because I will be wrong for somebody.

Foods that don't generate inflammation. So anti-inflammatory foods inclusive of food sensitivities, remove food sensitivity, food allergies, and food intolerances, et cetera.

Tests don' t guess. Fabulous. Give me your favorite supplements for neuroception. I like magnesium. Um, I liked three and eight, uh, for different reasons.

I also like fiber, prebiotic fiber that allows for you to incubate the right bacteria that then allow the safety signaling to happen in your gut. Exercise now can be actual physical exercise or forms of exercise.

What would you recommend? Listen, I'm partial to the Tai Chi's and the mind body practices for a very specific reason. I want my eyes, mind, body, and breath focused on what I'm doing.

So whether it's a sit-up, a push-ups, my awareness folded back into what am I doing when I am doing it and that's when the real magic happens. Any form of exercise with mindfulness as the undercurrent becomes incredibly beneficial beyond just the heart rate elevation and the moving of the muscles.

Your three favorite longevity hacks that also have a positive effect on neuroception. You listed one of them about a cold plunge. I agree with you, I'm not jumping in 10 degree ice.

I don't like cold plunges for everybody. And again, I think some people don' have the nervous system or the grit for cold plunge and I would think it would put them over the top and make them feel unsafe.

I that it is the straw that can break some peoples back. So I love sleep, meditation and breath work. Notice nothing I mentioned cost $3,000 there. Right, they're all things that you can do and they are all in the parasympathetic zone, if you will.

You got it. Engaging that ventral portion of the vagus nerve. So practitioners, remember it's not just the vagus nerve, it is stimulating the ventril but not so much the dorsal because who wants to freeze?

That's a huge takeaway. What's next for you personally, professionally? I'm in the middle of doing a ton of research on a book on this kind of multi-sexual awareness, some of the brain stuff that I talked about.

I am doing clinical trial with 150 people. We're monitoring 27 blood markers, saliva, SIGA, and heart rate variability. showing how folding our attention on not just our vision, but in our breath and our posture and all these things, folding and capacitating those do powerful things to our nervous system and allow for our NF Kappa B and healing pathways to happen.

So I've been pretty nerdy in the last couple of months. A couple of months, a couple years, and I'm just getting to the point where we're going to run the study, publish the studies, then I'll eventually write another book, but one

thing at a time.

I am not in a hurry. Amazing. Another book. You're on fire, my friend. This has been great. We really appreciate your time, we've got to do it again. Dr.

Pedram, you are without question a superstar and you have achieved being a luminary on my dais. It was my pleasure. Thanks so much. Rob Silverman, Open Health Alternatives.

Always yours in health.