Strategies for Brain Regeneration
Guest: Dr Datis Kharrazian

Niki Gratrix Hello everybody, and welcome to the Trauma and Mind Body Super Conference. I'm very excited and honored to introduce everybody to a very distinguished guest today, it's Dr Datis Kharrazian.

And just briefly, Dr. Kharrazian is a Harvard Medical School trained, award winning clinical research scientist, academic professor. He's also a world renowned functional medicine healthcare provider. He's on the scientific board of numerous peer reviewed science journals, medical journals. And he's also the author of two books which are on the bookshelf in my bookshelf and every functional health practitioner I know of! His international best selling books are *Why Do I Still Have Thyroid Symptoms? When my Lab Tests Are Normal* and *Why Isn't My Brain Working?*

And these were revolutionary books that have influenced the whole functional medicine movement. So I just want to point that out. Dr. Kharrazian, thank you so much for being part of the Summit.

Dr Datis Kharrazian Oh, thanks so much for having me.

Niki Gratrix Wonderful. So Dr. Kharrazian, you're always ahead of the curve, I think you are one of the real people who got the word out about the vagus nerve and how important that is in overall health and well-being, including mental health, but particularly gut health. Would you mind just starting by explaining to people how, if people have a poorly functioning, low vagal tone, how does that impact the gut? Does it impact the gut? And what is the impact?

Dr Datis Kharrazian Sure. So, you know, one of the things that's really important about this whole vagal / gut connection is that the vagus nerve is involved with modulating all aspects of gut function. From motility, so I move foods, to releasing digestive enzymes, to getting blood flow to the gut. It's critical for repair regeneration of the gut. So those are the key factors that are involved with this brain / gut access.

So when people do have dysautonomia, where they're like in a sympathetic stress, PTSD response, where people do have brain injury, then this vagal tone, they call it, becomes

compromised. And many people with chronic gastrointestinal problems, well chronic gastrointestinal problems change the gut microbiome. And as the gut microbiome changes, there's different changes in what are called postbiotics, which are chemical messages to the brain.

There seems to be a vicious cycle of this phenomena then causing more brain inflammation and lack of integration between different areas of the brain. So in a sense, the whole brain to gut and gut to brain vicious cycle becomes activated and then people end up with really poor brain function and poor gut function at the same time.

Niki Gratrix Yes. So there's so much focus on gut health and there's still so much focus just on taking probiotics, changing what you're eating in your diet. And that's important. But if you don't get the vagus nerve sorted out, you're not going to heal the gut, right?

Dr Datis Kharrazian Well, absolutely. I mean, if the vagus nerve is not doing its job and there is lack of blood flow to the gut, you're gonna end up with intestinal permeabilities, so-called leaky gut. If the vagus nerve isn't doing its job, you're going to have digestive enzyme deficiencies, because the vagus nerve is involved with the release of the enzymes. Those are going to have far reaching effects on the microbiome and how foods are digested, it's going to change the microbiome environment. So if you were to like, let's say, do a comprehensive digestive, stool analysis, looking at the mycology of the gut or looking for opportunistic bacterial growth or yeast growth, that's all going to be abnormal.

And so you have to, in a sense, to improve function, you probably need to support the gut with healthy foods and enzymes. But the problem is, I think many patients are frustrated because you're going, I don't know why I have a chronic gut problem, I'm doing all these things that fix other people's gut, but I don't know what to do. And I am pretty much on a leaky gut diet because I can't eat anything else with having reactions. So they're on a limited diet of food proteins and they're extremely frustrated. One of the missing pieces of that that I try to explain in my book, just working with so many chronic patients with this vicious cycle involved, was that the vagus nerve is involved. And there is a direct connection between how the brain, via the vagus nerve, impacts gut function.

Niki Gratrix So there are a lot of people on the Summit talking about all these different ways to stimulate the vagus nerve. And I wanted to ask you, there's a lot on the Internet about this now too, so everything from meditation, breathing exercises, chi gong, yoga. Would that actually work specifically for the gut, or do you have to do the ones that you recommend in your book, which is the direct like, gargling gag reflex and coffee enemas? Or do those more general ones work as well do you think?

Dr Datis Kharrazian Well, it depends on what's available, what's established. The real answer is, there's superficial treatments and then there's presynaptic treatments. Or let me

say it differently, anything you do that causes a parasympathetic effect, whether you do respiration, breathing exercises, or you do cold vs. hot plunge baths. All those things, you're going to have an autonomic effect, meaning you're gonna fire your parasympathetics. That will obviously improve gut function, because parasympathetics, in summary, they get blood flow to the gut, they activate enzyme release, they cause intestinal contraction to the gut so you've got movement and motility.

So the superficial level, yes. And also exercise really activates your vagus. So I think for people that have ever dealt with stress or constipation or just poor gut function, they've noticed that when they have been able to relax, been able to exercise, been able to activate their calming down part of their brain, the parasympathetics, they felt better.

But there are some people that actually have neurodegeneration. There are some people that have brain injury. And the key thing is the vagus is activated by your brain. So that even though you can do respiration and do different types of tasks, your brain itself is what actually activates the vagus. So the way your brain works, is you have all these different areas of your brain, like your frontal lobe, your parietal lobe, your occipital lobe. They'll all have different functions, where you have cognitive thought or executive function or you sense where your body is or you see color or you hear sound.

Those are all generated by different receptors through our body. So the way our brain works is, we have all these receptors throughout our body, smell, taste, touch, movement, motion. They'll bring input to the brain. But then the brain has output and 90 percent of the brain's output goes to the brain stem. And one of the nuclei in the brainstem is the vagus nerve. So any traumatic brain injury is going to decrease output to the vagus. And some studies show that about 90 percent of traumatic brain injuries decrease output to the vagus. And in those cases, kind of just doing respiration or breathing, it's not going to be enough. Or if someone has early signs of Parkinson disease or neurodegeneration, it won't be enough because you have to actually treat the underlying issue.

So, to try and answer your question, yeah, on a superficial level, you can sing, you can meditate, you can gargle. You can do the things talked about in the book. Those are all things that can activate the vagus. But a lot of times you might not get significant change if there is a lack of input from the brain actually to the vagus.

Niki Gratrix So this is exactly why I wanted to have you on the Summit, because you have the insight. So people can have nothing wrong inherently with their vagus nerve, it's their brain that has got degeneration which is not stimulating the vagus nerve. And yes it's a little superficial, those lifestyle things are important. So I do want to say to people, you know, keep the meditation going, keep the exercise going.

But, let's get into some of these more hard core ways of, how do we actually regenerate neuro brain cells and get the brain stem activated and get that vagus nerve going again? What would be your top tips? Or actually, what are the top causes in terms of lifestyle, diet, all these kinds of things, of brain degeneration?

Dr Datis Kharrazian OK, let me lay out a couple of things. So when I look at the vagal relationships, this first connection between the vagal relationship and the gut is as a newborn child. So when a child is born, the brain isn't completely myelinated. The forebrain is still developing and they still can't eat solid food. Once a child starts to walk and starts to have movement and they're starting to perceive the world and starting to tune in, that's where you start to see that they can digest their food. So in a very basic level, as the brain develops, you see vagal function coming in, and then you see children shouldn't have the ability to actually digest food, that's directly related to it.

If you see children with developmental delays, they're not able to start to stand up and walk and not able to communicate. And they're still unable to digest solid food. So then throughout your life, there's this connection there. And then somewhere along the lifespan, whether you have, let's say, traumatic brain injury or you have early signs of neurodegeneration, the same thing happens. There's a lack of input to this vagal area. And you have some problems.

Niki Gratrix Heavy metals, heavy metal toxicity, is that a big one for example, that would be a cause of this kind of brain degeneration?

Dr. Dietrich Klinghardt It's a factor, but it's not... That's the thing, our problem is when you try to categorize. You can make general concepts. But the problem is, concepts don't work with individual unique patterns. So I'll give you a couple of examples.
So what are the most common neurodegenerative diseases? The second most common neurodegenerative disease in the world is Parkinsonian disease, Parkinson's disease.
In that condition, there's actually a protein buildup called alpha synuclein, and it actually starts in the gut and then goes all the way up the vagus nerve, into the vagus nuclei. And that prevents neurons from firing correctly to each other. So that's something where, you know, you can gargle and do everything you want to do. But ultimately, it's alpha synuclein buildup that's causing it. And that neurodegenerative mechanism is involved.

Now, you have another scenario where someone, maybe when they were in their 20s, had a significant brain injury, they lost consciousness for a period of time and maybe they injured their frontal lobe. And ever since then, their motivation drive, executive functions to plan and organize, to stay focused, have been less efficient. And over the years, it's got worse and worse.

That area in the brain was initially activated, injured, and then the inflammation has continued throughout the next five, 10 years, which is what happens to traumatic brain injuries. And now there's lack of activation from the frontal to the vagal brain centers. So now they have all these gut issues that churned up five or 10 years later. So there is a little bit of uniqueness. What I always hate about functional medicine, nutrition, is they don't understand the brain and they just go, well, it's got to be metals. If you did a heavy metal test on every single human being, they're going to have elevated levels. It's an absolute fact.

And I jokingly call these practitioners 'heavy metallers,' just because everything they think about is heavy metals. And they're never wrong. Since everyone has them and then it's so easy to blame every neurodegenerative disease on it. And it's like, that's such an inefficient way to practice. But then again, yeah, there's some research that shows heavy metals have an impact on health, as well as all toxins, all pollutants in the world, they can accelerate some degree of neurodegeneration.

But I think what I'm frustrated about, and this is why I wrote my brain book is like, let's stop doing that. Let's try to figure out what mechanism is at fault. Like a chronic blood sugar issue can really impact the brain. Someone who's constantly hypoglycemic. Past brain injuries do catch up with people. The brain is actually made up more of immune cells called glial cells than neurons. So the brain is very reactive to any kind of systemic inflammatory load, whether it's air pollution that's impacting the lung's pulmonary pathways to the internal brain information, whether it's gut inflammation, turning on glial cells in the brain for brain information from an inflammatory diet.

So it's kind of like a multi-system approach. So I think the key thing is, and again, I'm trying to have an answer to your question, what are the top things you can do to prove your brain function?

Niki Gratrix Blood sugar you mentioned that was one example, right?

Dr. Datis Kharrazian Right. So the key thing is, what are the most common triggers that are unique for the person? So the reason I kinda singled out heavy metals is because heavy metals are involved in every single person. Everyone has some degree of toxic compounds. That doesn't impact everyone the same.

For example, some people have intact blood brain barriers, so there's no issue. The ability for that to cause impacts on the brain are much less because they can't get into the brain. Other people have blood brain barrier permeability. Some people already have a heightened immune state from previous trauma to the brain. Or maybe they had hypoxia, maybe they almost drowned once and these brain cells are activated to some degree already. And then they get some kind of environmental toxins pollutant, so it impacts their brain a little bit differently. So, these are the unique variables, like in a real clinical setting where you're trying to go what do we do?

Now, for the most part, the brain is sensitive to inflammation. So whatever causes inflammation. It's a general concept I think across all diseases in all health is, how much information you have? So inflammation is going to come from your gut. So if you have a very inflammatory diet, you're going to have brain inflammation. Inflammation can come from air pollution and things you breathe, so the quality of your air does matter. If you live in a environment where you have, let's say, mycotoxins and severely high amounts of high benzene in your saturated area, the city that you breathe in all the day, that will have some impact.

Epidemiological or geographical studies have correlated studies like air pollution with brain degeneration and brain inflammation and so forth. So it's not it's not a theory, it's what's known. So the key thing and number one is, your brain is extremely venerable to inflammation.

So, for example, let's say you do have a poor brain and you have a brain injury that's caught up with you or you have some degree of early neurodegeneration. And you're gargling and you're doing all these vagus exercises, you're going well, it's not working the same for me. Well, you may actually have more work to do. You may actually need to really address those underlying brain issues. But the most common ones, just to simplify, will be just systemic inflammation. Blood sugar issues is really critical for the brain because one third of the body's glucose is used by the brain.

So people that are hypoglycemic, they get shaky, lightheaded, irritable, people, if they don't eat a meal they'll get tired. Those blood sugar surges do cause inflammation in the brain and decrease fuel sources for the brain. And then the third one is just circulation of oxygen. I mean, people have really cold hands, cold feet, poor circulation, underlying thyroid problem that impacts their metabolism, the blood flow, they're all going to have accelerated rates of neurodegeneration. And you can keep adding variables down, but I would say just to keep it simple for this, circulation and blood flow to the brain, blood sugar and inflammation are probably the main ones.

Niki Gratrix But chronic stress would also be a factor? Would also cause chronic inflammation?

Dr. Datis Kharrazian Stress basically adds fuel to the fire for everything. But I also want to point out your ability to respond and react to stress depends on how your brain functions. So let me also point this out, not everyone's gonna respond to stress the same way. So, different areas of your brain are involved with autonomic functions that then create the stress response.

So ultimately, when you look at the stress response, you're getting what's called the limbic response, area of your brain that's involved with emotions and the fight or flight response. And then your limbic center, in a stress response activates the sympathetic centers. So whether you get fear, anxiety, or just have your heart rate go up and something traumatic, whether it's psychological or immune triggered response. You're actually having those responses because your brain is not gating it.

So the way this works is, you can have areas of your brain that fire into your lympics stress centers abnormally and you can have areas of your brain that should gate, should calm down the sympathetic centers more aggressively, appropriately.

So let me give you some examples. So if you have a stress response, the area of your brain, your limbic regions, your limbic brain, your limbic areas are activating and they fire directly to sympathetics for a fight or flight response. Because there's a stress so your heart rate has to go up, you have to increase your breakdown of glycogen and glucose to have more fuel for energy, so your cortisol goes up, your epinephrine goes up, you're just ready to deal with stress.

So that's generated by the limbic areas of the brain to an area in the brain called reticular spinal tract, which then fires to your spinal cord and you activate your sympathetic chain and you create these responses.

Well, normally there's a pathway that inhibits that. And there's a part of the brain called the frontal cortex that activates a pathway called the basal ganglia indirect pathway, which then dampens this area. So you could have someone who has got frontal lobe degeneration or frontal lobe injury. Now their response to stress is completely different. Now they can't gate it. So now they can't stop their restless mind. The thing is, when you look at emotional trauma, emotional is a trigger or any kind of trauma is a trigger. But your brain integrity and your brain fitness will determine what kind of autonomic response you have to it.

So if you have someone who's got a frontal lobe injury or frontal lobe degeneration, or they never really developed their frontal lobe well throughout their life. And now they've had some stressors and that pathway to inhibit it aren't working, you've got a problem. So whether it's the frontal lobe or the basal ganglia that are not dampening it, you can have significant stress responses.

So, like in my practice, what I see with patients is people that have trauma and they haven't been able to recover or they're in a constant sympathetic state, we call that dysautonomia, and they don't know what to do about it. And listen, there's only so much meditation, there's only so many antioxidant nutrients you can take, there's only so much taurine or magnesium or camomile or all that stuff you can do. And also, if you have a frontal lobe injury, for example, you can't even meditate because meditation involves your frontal lobe.

Niki Gratrix Yes! It's actually really important what you are saying here because a lot of people who may have had early life stress, and they've had childhood trauma, and they're in the psychology community. And they've been doing psychology techniques they are doing all that stuff with the meditation, and actually haven't connect the dots.

They may have actually had a concussion in their late teens and not realized that could have been the key fact of why they have this mood disorder. So this is really key. This is something nobody else has mentioned about traumatic brain injury, so let's just highlight this. People should look back in their history. Have you ever had a knock on the head, been concussed?

And can that be repaired? Are you looking into things like red light therapy at all, or stem cell regeneration or anything like that?

Dr. Datis Kharrazian Yeah, but let me let me go into this. So I think the key thing that we've talked about is, your response to stress is absolutely 100 percent dictated by, from a neurology perspective, of the degree of fitness of your brain. Or the pathways in your brain that activate it, are they more activated, or the pathways that dampen it, are they inefficient? So neurodegeneration, brain trauma have an impact on that.

And this is the thing, it's kind of like, will the psychology work? Well, not for someone who's got a frontal lobe injury. So there's this unique variable. This is the limitations of developing proper studies. Because proper studies, you have to actually evaluate a person's brain to determine what factors are involved.

Because some people have what we call exaggerated or abnormal responses to a stimuli. So whether it's sound, like for some people, I'll give you another example, lots of people have vestibular disorders. So they have poor balance, they get carsick, they get seasick really early. That's an area of the brain called the cerebellum, it regenerates.

Well, the area of the cerebellum has to dampen input coming in from your feet, from your inner ear, from your eyes and where you are in space. So this area of the brain interprets where your body is in space compared to the environment. And this area, the cerebellum, really degenerates with people that have gluten sensitivity, coeliac disease, hypothyroid patients, have much higher rates of degeneration of the cerebellum area of the brain than other people.

So if the cerebellum degenerates, they can't process these inputs. Motion and movement dramatically activate the sympathetic centers because if your body thinks it's falling, you have to act with the sympathetic centers. So you can have someone who, all of a sudden is in a crowded environment where there's lots of motion, lots of movement, and they get a stress response. And now their emotional response is totally different.

Now, anything else, for example, they get in a crowded room, there's lots of motion, lots of movement, or they see a movie with lots of screen flashes and things that are activating their brain and their body is trying to figure out where they are in space, because they just saw a car crash in a car scene. Now, this area is fighting the sympathetic center much more and they don't know why they have anxiety, they don't know why they're having this sympathetic response. But it's because this part of the brain is not working.

So I think for me, as a health care provider, looking out in this entire field of conventional and alternative, I'm like, if you don't understand the brain and how the brain responds to stress and you don't evaluate that first, everything else is a total guess.

Because let me give you an example, you can have someone that has a brain injury and they could do aromatherapy and aromatherapy fires the centers of the brain that then activate inhibition to the stress pathways, so for them aromatherapy works.

For someone else, their basal ganglia is injured. So when they actually do focus and concentrate or meditate, that activates centers of the brain and they calm down.

For someone else, their cerebellum is degenerating, so as they're exercising the core stability, working, the search to improve the fitness of their brain. And now they don't have this constant escape to this area of the brain. So one part of this big picture is which pathways are actually activating our stress response centers the brain, and what's their integrity and fitness, and what's the vulnerability? What's happened to them?

And then another one, which is all the metabolic, nutritional, chemical things that impact, can the brain recover? Can the brain regenerate? So it's kind of all these factors in a real clinical world setting. And that's why it's very frustrating as a health care professional, as an educator, when you try to see everything simplified, does one therapy work or another? I don't know what part of the brain is not working and what is it doing? Is focusing on breathing concentration important? For some people it will actually make the stress response worse. For other people it can be very therapeutic.

So there's that uniqueness of it as well. So I think for a lot of people that have these emotional autonomic dysfunctions, and they don't know why they started getting anxiety, they don't know why this trauma has impacted them so much. They may not realize it's a multivariable problem.

And then they go to one doctor to the next, and the next and they kind of look at it through their glass. You go to an acupuncturist it's going to be Chi energy issue. If you go into a heavy metal person it's going be a heavy metal issue. You go to a psychologist you need some kind of psychotherapy. And it's like, wow, you have no chance. So that's, I think, the frustrating thing, I guess, with all of the people that are trying to learn more about these conditions.

Niki Gratrix Yeah and that's also tricky because, well, the conventional medicine approach for the mental health, I mean, that's just boxed into, you've got a chemical imbalance we'll fix it with SSRI, and that's got nothing to do with what you're talking about, so that's not necessarily helpful. And then you got the psychology side that, they've got their role to play but with somebody with brain degeneration, they're going to be treatment resistant to the psychology work or the meditation, it may not work for them. So this is a key factor, this key piece that you're saying.
I mean, do you brain scan all your clients then?

Dr. Datis Kharrazian No. But I would add something, alternative medicine is as bad as conventional, let's just be honest.

Niki Gratrix OK!

Dr. Datis Kharrazian There's just so many people that are over supplemented, over treated. And again, because they don't understand these variables, so it's equally bad on both sides.

Niki Gratrix Yes, I agree.

Dr. Datis Kharrazian At the end of the day, each person has to, ultimately, if you don't have a really high level trained clinician to help you, you're going to have to do trial and error. Even with highly trained clinicians, they are going to see a patient and go this area of brain

is not working, you have ten lifestyle factors that can impact your brain health, let's see what's working for you.

So I think if you're a listener and you're trying to figure out what will help, well, maybe it will be one type of therapy verses another. So you do have to experiment. Because what works for you may not work for another person because you have your own uniqueness and combination of things that impact the stress pathway.

So I don't scan everyone because most brain injuries are not going to show any kind of change on scans. A typical MRI is really good for finding a tumor or finding significant demyelination from like an inflammatory autoimmune response. A brain injury is not going to show up on an MRI in a chronic state, unless there is change in the blood volume or some kind of dramatic shearing or tearing. And at that point, they're not going to be functioning very well.

But the people that typically have had a head injury 10 years ago or shown to have early signs of neurodegeneration, in the early stages, for many decades, you won't see anything on an MRI. So the key thing is neurological examinations are really important and just going through each of the steps of improving your brain health, unique to the person. Which, again, is hard to explain all in a interview.
But they can understand the concepts of individuality, uniqueness, multifactorial variables.

Niki Gratrix And we do cover, there are speakers just talking about blood sugar, just talking about thyroid function. We do actually cover everything. And people may need a bit of a provider team so they might need to do psychology work and four other factors and so on.

Dr. Datis Kharrazian So ultimately, I would say my experience have been with patients that have been successful dealing with trauma that's impacting their autonomic centers and they're going to have to do trial and error, try many things and see what works best for them. But also realize, this is very, very important, you have to realize every practitioner you see is going to have significant bias. They're going to be convinced in their heart that you need this kind of therapy because they've had other patients who have responded. So why wouldn't you?

And by the way, other practitioners, just so you know the secret, other practitioners choose what they do because it's actually helped them. They have their bias of going, oh, it's helped me so it's got to help everyone else. And then they've become the adrenal specialists or the thyroid specialist. So you have all this bias, you're walking into bias. If you don't know that, you're going to not be able to navigate your own health through this.

So you've got to kind of go, OK, I'm going to do trial and error, I know that each person I'm going to see is going to have their approach, but this approach may work for me. And then you get to try some things. And then it's over a combination of different variables you're going to have to put into it. And quite honestly, people that have these types of complex conditions, they have to have some psychological endurance, emotional endurance to be able to work through it. Because it absolutely is some trial and error, working through many different models to see what works best for you.

Niki Gratrix Absolutely. Thank you. You have validated the Summit because we literally do have every single emotional, psychological factor, all the different approaches, all the different environmental factors, all the different areas, the functional, brain specialists, neuroscientists, adrenal specialists, gut specialists, all on the same Summit. So someone isn't going to get caught in one bias.

We've got Ken Wilber on Summit as well because of his integral theory, his four quadrant theory is go big picture and he's all about not having these individualized biases in what areas. So thank you for just confirming that as well. It was good.

So, anything else that you want to add and comment on in terms of, perhaps people, the audiences, we have the psychology community, functional medicine community and a lot of people who are coming because of mental related illness, anxiety, depression, might have bipolar or they've had a lot of trauma in childhood. That's the kind of audience that you're speaking to, you see the thing is, everybody should go and see Dr. Kharrazian, but there's only one of you!

Dr. Datis Kharrazian And we don't have any openings for a long time, so I am definitely not the person to go see. You have to basically navigate yourself. Here's what I would only encourage, I would encourage that if you do have this chronic, unexplained, chronic stress response, PTSD, autonomic response, can't control, you have a restless mind, your heart rate is going all over the place. Just take a step back and go, what is going on with my overall health of my brain?
Because your brain is going to really be the key factor of why you have a sympathetic response, why you can't control and gate emotions, why you can't calm things down, why things are firing on their own individually. And then I think just realizing that there's a huge brain component to it is important.

Then, to understand your brain is going to react to your diet, to your gut, to everything else, to stimuli, to your environment. So at the end, you're kind of stuck with, what do I do? I think the key thing is to look at the brain.

So the only thing I would say is, the reason I wrote my book, *Why Isn't My Brain Working?* is, I put together in a chapter symptoms associated with blood sugar mechanisms, how they impact the brain and symptoms they cause, and brain information and things like essential fatty acid.

So if I can be of any aid with what I put out there, one would be please check out my book, because it goes into each of the different stages and mechanisms that can impact the brain function. So at least if you understand the symptoms, then you can at least read the chapters. And the chapters go into applications of what you can try, different things, and it's all referenced to the literature. There's like a thousand scientific studies for that book and the back of the book reference to it, so it's not just theory.

The key thing is knowing what to do. And then, I've written lots of articles on my website, drknews.com. And when I wrote my brain book, I had a lot of people suffering with I can't read it, it's too long, it's like a huge brick, it's like a thousand pages, I can't process it so help me.

We thought the audio book would be okay, but then we created an online program, *I'll Save Your Brain*, which is a six week program where we teach each of the steps and symptoms of how to slowly improve your brain function as a general step by step approach. So that's one attempt, one way that we've tried to get some this information out there to help people, because I can't see a lot of people in my practice alone.

But I think the most important thing is to know that there is uniqueness of your stress response, that your stress response, your response, your post-traumatic stress, your PTSD, autonomic response, it's all activated by your brain. It's not activated solely by your adrenal glands. Your adrenal glands don't work without the brain activating them. Your gut's not going to just shut down by itself, there's autonomics that control your gut function.

So ultimately, the brain is really, really critical but it's also the area everyone just ignores. They just assume everyone's brain is the same, and one kind of therapy should work with everyone, and that's not how it works. So there's this whole degree of brain uniqueness and if you can understand that, that's why you can see why there's so many different variables that may work for someone and not work for someone else, and why certain concepts are important for some practitioners that are focusing in one area. And also know that when you walk into the healthcare system, whether you go to conventional or alternative, each practitioner you see has a tremendous amount of bias to their therapy and their protocol.

You know, the saddest thing is that you meet someone, this practitioner is so dynamic and they're so like, it is absolutely heavy metals; it's candida; it's this… you know? And they believe it in their heart and if you're a patient, they're so convinced, how could you not believe it? And then it turns out, you do a protocol for three months, and guess what? It didn't really do anything. Now you're totally disheartened and you're broken down.

And this constant hope, not hope, hope, not hope, hope and then crashing, hope and then crashing, it's part of the trauma. So just be aware of that so it doesn't impact you as much and navigate into it, knowing that these biases do exist and there is some trial and error and unfortunately you have to go through and figure it out. That would be the best tip I think I can give people.

Niki Gratrix That's absolutely fantastic Dr. Kharrazian. Thank you so much. I'm so glad you talked about your book as well. I actually found your book very accessible because it is so well organized. You can just go through the book, just one bite at a time. So if you try and do it all at once, no. This is part of your life's work, you're not just going to get in a day. But just step by step, focus on one chapter at a time and address, does this apply to me? Is there things I can practically do about this area? And then move through it.
And wonderful that you have that online course, I was going to ask you to share that too, your website details, DrKNews.com, will be on your speaker page as well.

Dr. Datis Kharrazian Thank you.

Niki Gratrix Absolutely brilliant, it was awesome. Thank you so much, Dr. Kharrazian, thank you. Take care, everybody, and we'll see you on the next episode.