THE MODEL HEALTH SHOW

EPISODE 888

Medicine or Myth? Expert Uncovers the Secret Benefits of Fungi

With Guest Tero Isokauppila

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SHAWN STEVENSON: Prepare to have your mind absolutely blown today. Not only are you about to discover one of the most powerful things that you can do to increase your longevity and why it actually works, what specifically is it helping with the human body to help us to live longer? You're also going to discover the shocking way that this category of foods we often attribute this to foods is far more similar to human DNA than it is to any other food on earth. To call it a common food and to put in that category is disrespectful. It's not putting respect on this category of food's name, and today we're going to change that for good. Plus, you're going to learn about how this powerful kingdom, it's really a kingdom. The species is also helping to address one of the most pervasive and dangerous issues that we're experiencing as a society.

And this is one, the impact that plastics in particular micro and nanoplastics are having on our bodies, our hormones, and are health overall plus is gonna trip you out to understand how big this problem is. The absolutely astonishing amount of plastics that are accumulating in our environment that just seemingly aren't going anywhere. And so you're gonna see how all of this connects and we're gonna be able to address our health as an individual and our families and our communities, but also society wide. And I'm talking about the power of this category of fungi, the kingdom of mushrooms. Now again, I was shocked to learn some of this stuff.

I've been utilizing as many people have certain culinary mushrooms and medicinal mushrooms like you know, cordyceps and Rishi for many years. But to see just how broad and impactful these mushrooms in this kingdom of mushrooms is. And also we're gonna look at when we're talking about mushrooms and fungi, like, is this one and the same? What parts of the mushroom are doing different things? And most importantly, what are the best practices to utilize some of these things to truly benefit our health? And again, backed by science in so much more is in store for you today with our special guest. Now, one of the most interesting things that I've learned from our special guests is just how pervasive mushrooms are and fungi are in our environment.

Fungi. Fungi, are you a fun guy? All right, however you wanna say it. They're everywhere. They're literally in space. Alright, all the way down to the deepest depths of Earth that have

ever been discovered and researched. They're mushroom spores and volcanoes and like lava, like they're so hearty and adaptable. It is truly remarkable. And also, they're in the very air that we breathe. And this is something that's not to cause shock and awe, alright? But it's just to understand that this is one of those invisible aspects of this matrix of life that holds everything together in creating life for us here on planet Earth.

Now with that said, there are a lot of things that should not be in the air that we breathe, that the vast majority of us are breathing with every breath of every day. I'm talking about the growing levels of abnormal molds, volatile organic compounds, AKA VOCs. The bacteria in other microbes, and even the dangerous cooking particulates that fill our homes when we're trying to cook for ourselves and to be healthy. The things that we're cooking with and the products that we're using are causing all of these compounds to be released in into our environment. And we're here sharing this air together. We're in a glorified snow globe, essentially together, and a lot of this stuff isn't getting broken down. And also in particular, it's filling our homes.

And the most robust data that we have on indoor air pollution is affirming that indoor air can be upwards of 10 to, in some cases, 50 times more toxic than outdoor air. Now of course, this is gonna depend on a variety of factors where we live, but for the average home, it's gonna be somewhere in the ballpark of 10 times. And this toxicity, we're really talking about a concentration of particulate matter as being one of these kind of hallmarks of toxicity. And this is absolutely having an impact on our health, whether it's our energy, our cognitive function, our sleep quality. In fact, just looking at the impact on our cognitive function.

A recent study that was done in collaboration with MIT found that even minor reductions in our air quality creates reductions in our brain function and negatively impacts our decision making. Specifically, the researchers noted that it was the buildup of particulate matter in our indoor air environment that leads to worse brain function. Many of us simply need to make it a habit of opening the windows, at least on occasion, to allow in some quote, fresh air, but also to disperse some of this particulate matter buildup. But for many of us, the most effective and consistent thing for us to do is to use a powerful air purifier and for myself and my family, without question, the very best air purifier by far is the Jaspr Air purifier.

It eliminates and filters, chemicals, mold, volatile, organic compounds, bacteria, viruses, pet dander, and even that harmful particulate matter that fills our home when we're cooking. Jaspr has a unique three stage filter with air scrubber technology, all in one pre-filter, HEPA and carbon filter. And this is why Jaspr's able to capture 99.97% of dust allergens and dander with its powerful filtration. And here's the thing, it's incredibly powerful, but whisper, quiet. You need several standard air purifiers blasting at their highest setting to even get close to what a Jaspr can do quietly and more effectively. In most home spaces, jaspr has been proven to reduce more than 99% of the fine particulate matter like pollen, smoke and dust in just 20 minutes.

Right now, you can get a new Jaspr for your home office or any space that you want cleaner air for $200 off when you go to Jaspr.com/model and use the code model at checkout for that extra $200 off. Jaspr spelled a little bit differently. It's JASPR.com/model and use the code model at checkout for $200 off. I've been obsessed. If you ask my wife, I've been obsessed with studying my air quality and utilizing my Jaspr because it's not just about the pure air cleaning power that the Jaspr has. It's an education tool because Jaspr is looking out for you. It has some of the most high powered sensors that have ever been utilized for an air purifier, and so it's constantly monitoring the environment and helping me to make decisions about what I'm doing in my home. So again, head over to Jaspr.com/model. That's JASPR.com/model. Use the code model for $200 off at checkout. And now let's get to the Apple Podcast review of the week.

ITUNES REVIEW: Another five star review titled Brilliant by SAT fala. Not only is Shawn's content critical for this moment, but he explains everything so clearly that it's easy to keep in our minds throughout the day. I especially appreciate his extensive show notes, which many podcasters don't bother to do lots of extra work, but make it so much easier to find all the valuable information and references in the show. Thanks, Shawn. You're invaluable. By the way, loved, eat smarter.

SHAWN STEVENSON: Thank you so much for leaving that review over on Apple Podcast. I truly do appreciate that. And without further ado, let's get to our special guest and topic of the day. Tero Isokauppila is a bestselling author and the founder and CEO of four Sigmatic, a

wellness company that created the original mushroom coffee and helped tens of millions of people find focus, gut health and a sense of calm. Teros roots are in Finland as the 13th generation to grow and forage real foods on his family's farm. He later earned a degree in chemistry business and a certificate in plant-based nutrition at Cornell University. Tero was chosen as one of the world's top 50 food activists by the Academy of Culinary Nutrition and has appeared in Time Magazine, Forbes, Vogue, gq, and Bone Appetit to name a few.

He's passionate about educating on the power of medicinal mushrooms to improve our health. His newest venture is the award-winning biotech company, hero technologies that's addressing our rampant buildup of plastics in our environment, and also the impact that microplastics are having on human health. Enjoy this conversation with the one and only Tero Isokauppila. All right. I'm here with the Living legend. Living legend and icon Pioneer. Pioneer in the field of mushrooms and mushroom coffee. My good friend Tero. How you doing, man?

TERO ISOKAUPPILA: Thanks for having me on here. I'm excited to chat.

SHAWN STEVENSON: Of course. Now you say that we are actually part mushroom as human beings. We are part mushrooms.

TERO ISOKAUPPILA: Correct.

SHAWN STEVENSON: What exactly do you mean by that?

TERO ISOKAUPPILA: So mushrooms are fungi and animals, which we're part of, share common ancestors, and we were used to be part of this Super Kingdom. And then we split out and we still share a lot of our D-N-A R-N-A with mushrooms, like up to 50% of the DNA sim, similar with fungi and animals. And there's a lot of how they breathe oxygen, for example. And expel CO2 versus plants are the opposite. So they're similar to us in that way. There's a little difference on how they digest food, but like from the core, DNA point of view, up to 50% is the same.

SHAWN STEVENSON: That is bananas. So I think that a lot of us, it of course, if we're not educated about mushrooms. We just kind of put them in the category of like vegetables

TERO ISOKAUPPILA: Correct.

SHAWN STEVENSON: But you're saying mushrooms are more similar to us than they are to vegetables?

TERO ISOKAUPPILA: Yeah, there's, in biology, there's multiple kingdoms. Like they keep changing by the way all the time. But there's like 5, 6, 7 kingdoms. You got the plants, the plant, the animals, and Alia, there's the fungi. There's the bacteria, you know, and then there's these single cell creatures, but they're their own kingdom. They're their own world. They're own their whole thing, but they're a lot closer to us than we're closer to plants, for example. And our gut and our skin is full of bacteria and also fungi. So, you know, there's a lot of talk about, you know, microbiome, but there's also a microbiome like the mushroom bacteria. So like usually where you find bacteria, you find fungi and they live together in these symbiotic relationships. And so a lot of our gut health and skin health are tied to mushrooms.

SHAWN STEVENSON: So can you talk about the distinction between mushrooms and fungi?

TERO ISOKAUPPILA: Yes. I actually technically used it incorrectly in the previous sentence. It's like fungi is the kingdom and it overarches all the parts within that kingdom. And there is a, a lifecycle with fungi similar to lifecycle of plants or lifecycle of humans. It starts with this spore, the seed, and it germinates into this hyphae., And the hyphae grows into mycelium. Mycelium will fruit a fruit. So think of like mycelium as like the apple tree. And then the fruiting body, which is the reproductive organ, is like the apple. And that's what we technically should call mushrooms. So when we talk about mushrooms, it's the reproductive organ.

So like the apple from the apple tree, not the tree itself. And then that fruiting body will in right conditions, spread the spores again and that will create new life. And that's the cycle of the, of the fungi. So technically mushrooms are the fruiting bodies of the fungi, which is like the life force, like the fungi takes all mustard, all of its life force into this thing, nutrient-dense thing that you eat or consume. But people often makes the two. So I often to keep it easier for people I call, just say mushroom, you know?

SHAWN STEVENSON: Yeah. And we'll use them interchangeably in this conversation, but just so people have an awareness that mushrooms are one part, essentially of this very broad dynamic kingdom of fungi.

TERO ISOKAUPPILA: Correct. So, you know, same as if you pick up blueberries or eat any other plant a salad, you know, it's like in a way, the part that we eat or should eat and we don't eat the roots of those, those plants, for example.

SHAWN STEVENSON: Gotcha. Gotcha. Now you mentioned the Michael biome. Right. So the microbiome is having a huge moment right now, and many premier scientists are really affirming just how much our microbiome is affecting our cognitive function, our cardiovascular system, the health of our skin. The list goes on and on. In fact, pretty much every organ that we can identify has its own microbiome. There's a microbiome of our lungs. There's a microbiome of our hearts, obviously, of our gut, our skin is teaming with different microbes including fungi as well.

TERO ISOKAUPPILA: Correct. And there's many kinds of fungi. So there's the bad kind of fungi and the good kind of fungi. And so you can have, you'll have fungi in your body, in your gut and skin no matter what. And it's just a question of do you have the good stuff or the, not the good stuff. Same as with bacteria. Right. And, because of the DNA similarity, fungi are very bioavailable to us in both good and the bad. So we are very prone to fungal diseases. So think of mold like, you know, a lot of people talk about molds in houses and then they get really sick and those are the bad types of mushrooms and or candida. Candida would be a bad form of fungi. And then there's the good guys. So the good guys can help actually kill the bad guys. So weirdly, you can fight fire with fire and you can use some of these very antibacterial, even antifungal mushrooms that fight off those bad ombres.

SHAWN STEVENSON: Now this is opening up a door that a lot of us, you know, we're exposed to this certain thing, this category of a certain thing, but we don't really understand the root, which is medicine, drugs. Many of our medicines today, as a matter of fact, like many of the top medicines are actually derived from fungi. Talk a little bit about that.

TERO ISOKAUPPILA: Yeah. Fungal medicine is a core part of all pharmaceuticals today. So call it 40% roughly of, of medicines utilize fungi and isolates derive from fungi. And about half of the bestselling drugs are derive from fungi. A lot of immunosuppressants, for example, penicillin would be the one everyone would know that's, that's basically fungal medicine. But you can own nature. You can't patent nature for yourself. So what they do is they take a little bit of an isolate here from fungi. They combine it with something else that doesn't exist in nature, and they can get a patent for a drug. Drug for let's say, MS disease by Novartis gilenya is the only official cure for MS or drug for ms, and it's derived from cortis mushrooms.

Corsis mushrooms are also the basis of, you know, popular TV shows like HBO's Last of Us, where they're zombies. But then Quarter Steps can also be used as a medicine, say for as humans to give us energy, improve our ATP production. So it's like all these weird things and when you start learning about them for a while, they don't make sense 'cause they feel contradictory. But then the more you realize that's how nature is, it's like gas and a break in one like if you drink green tea, you get caffeine, but you get L-Theanine. So you get like the gas in the break, you eat chocolate cacao, you get little bit of ermine, which is energizing, but then you get magnesium, which is calming and that's just how nature works. But we like to think of just uppers and downers and goods and bads and usually it's a lot more of a symphony.

SHAWN STEVENSON: Yeah, that's such a great insight because I was actually gonna ask you about that. What tends to happen is, you know, scientists will find out, and as you mentioned fortunately, camp patent nature. But find some isolated compound in the thing. And it basically becomes a one trick pony. You mentioned becoming an immunosuppressant, right?

TERO ISOKAUPPILA: Yes.

SHAWN STEVENSON: By utilizing certain categories of, of fungi, but medicinal mushrooms themselves, many of them are immunomodulators. Right. So they can suppress or help to increase the activity and performance of the immune system. Talk more about that.

TERO ISOKAUPPILA: Yeah. Our immune system is one of the core functions of our body and it's very complicated, but you basically have internal security officers in your body. 'cause like there's no way to not be exposed to toxins and intruders, so they protect you. Sometimes they get lazy and they're not doing their jobs, they're taking a long siesta and you get sick. So commonly you get a flu or cough, you know, the immune season as they call it. And in those cases you need immuno stimulants. You need like pound the garlic, you know, or like. GNA or something like that. They stimulate your immune system. But increasingly, a lot of people are overstimulated.

So their immune systems are, they're working overtime and they get confused on who is a good guy and who's a bad guy. So things like allergies and autoimmune disorders is basically your own body attacking healthy parts of your body, creating this confusion. They're like, it's like they don't know who's the intruders anymore and now they're attacking healthy parts. And in those cases you need to suppress, hey, calm them down a little bit. But what's cool about nature and in this case, these medicinal mushrooms, is that they're in modulatory. So they, they have this intelligence, probably intelligence that we will struggle ever fully comprehend how it works. And it's gonna tell the body, give this body a signal to either like accelerate or decelerate. It's almost like driving on a highway and putting the car on cruise control at 60 and it's just gonna keep you there, you know.

SHAWN STEVENSON: That's powerful. In this conversation specifically about immunomodulation, this reminds me of the very first medicinal mushroom that I was introduced to, that I started to experiment with and employ in my life, and also patients I was working with over the years. And this was featured in the peer-reviewed journal, aging and Disease, and we'll put this up for everybody to see, and it found that Rishi right, the medicinal mushroom Rishi, has definite anti-aging properties, specifically through defending against excessive oxidation, improving immunomodulation and defending against neurodegeneration. It's hitting on all these different aspects of human health, including protecting our brain and having you here. One of the things I wanted to talk about was the relationship between medicinal mushrooms and longevity. In particular, we're on the conversation of Rishi. So let's talk about a little bit more about this connection.

TERO ISOKAUPPILA: Yeah. I like to think of like life and life force as like a river and it flows and then these obstacles like rocks and tree logs that come on the way. And in a way, human health is kind of trying to remove those and flow through with the flow of life. And we often get offered things, medicine, be it pharmaceutical or natural medicine, to say that it solves all, but I think it, our body already has the answers and it's just restoring that balance where the river can flow freely. And I think that's what a lot of these mushrooms and adaptogens, as people call them do, is they restore balance. And the balance then means also better health, better longevity. There's some obvious things that these medicinal mushrooms, like Rishi or Chaga have, they have antioxidants that protect from these free radicals. I know you're a big fan of the Superoxide dismutase. There's multiple kinds, but it's not that simple. It's not just like, oh, have antioxidants and it protects me from oxidation. There's a lot of things around gut health and cellular health that these mushrooms like Rishi offer, that protect us from quote unquote "aging" or maybe the symptoms of what aging brings to some people.

SHAWN STEVENSON: Hmm, hmm. You know, one of the things that really jumped out about what you were doing when I first met you, and I shared this with you initially, I used to get diff different medicinal mushroom products. Like I'd get a hot water extract from one company and then I'd get, you know, an alcohol extract from another company and put 'em all together like in a smoothie and things like that. And you were doing this dual extraction. And that study that I just mentioned, it found that in particular is the triterpenes compounds. And you're gonna be able to extract those from the, from the mushroom primarily in just one extraction method. Correct. And sometimes you might get a, a product looking for this result, but you're not even getting the right extraction method.

TERO ISOKAUPPILA: Yeah. That's a hard, that's hard with mushrooms. That's hard with any kind of health food products, to be honest, as a consumer. So, you know, there's not a lot of talk about food dyes and additives that, you know, are in our health system with these conventional incumbents that make mass produced foods. Right. And we're worried about that, which is great worry to have. And you should eat pure Whole foods at the same time. A lot of the expensive supplements and health foods you buy at the health foods store are not what you think they are. Actually there's another period study about risi supplements in the

us and it found that 74% of the RISI supplements they studied didn't contain any risi supplement, like actual risi mushroom.

So you're buying a Risi supplement or risi mushroom, but it has no reishi mushroom in only 26% of the cases. He actually had what he said he had. So it's very common, not just with mushrooms, but a lot of health products like it. The product actually does not contain what you think it contains. And then on top of that, is it bioavailable? So in this case, for example, these mushrooms have water soluble and non-water soluble compounds. So the water soluble compounds like the beta kleins are good for gut health and immunity that immunomodulation we talked about. But then there's these non-water soluble things that, like in the case of res sheets, the triterpenes or you know, other mushrooms have different kinds that you would then extract with, such as like alcohol distinguishing process and those are the things that would have more of these adaptogenic longevity benefits.

But if you take one product, you get those, but not the gut health and immunity. And if you take the gut health and immunity product, you're not getting this adaptogenic property. So that's what inspired us to like create the first like dual extracted powdered product, create the dual extracted first ever mushroom coffee. So that consumers don't need to overthink. There's no sacrifice, there's convenience. But still today, you know, fast forward almost 15 years, people still, you go to these places and you buy expensive 30, 40, $50 health food products that don't contain what they say they contain, which is pretty messed up.

SHAWN STEVENSON: Yeah, absolute. Pretty messed up indeed. Yeah. And this is again, just spending time with you doing my homework. And, you know, really getting to know the company over the years, that's what jumped out to me was like, this really a family dynamic, you know, springing from your background and your family, but also what you brought into four sigmatic and the integrity and something I could trust. And also using the part of the, the mushroom, the fungi that is actually beneficial, right? So a lot of products are not using the fruiting body, as you mentioned, so let's talk a little bit about that.

TERO ISOKAUPPILA: Yeah. This is mostly an American problem. I'm pro-America. I live in America. I have an American wife. My kids are both Finnish and American. So, but at the same

time, like every society, including where I'm from, Finland, we have our, you know, blind spots, you know, strengths and weaknesses. And one of the, I think, blind spots of America is this unlimited confidence, you know, like and the fact was it because Anglos action culture, what us was based on was not, was micro. There was a fear of mushrooms. So basically the US culture is hundreds of years behind in mushroom education, mushroom understanding. And when it started becoming popular a few decades ago, Americans thought they knew better than our ancestors, indigenous cultures, and the hundreds of years of mushroom cultivation around the world.

And they invented these, like basically lab grown, these mycelium grown on grains. And I could talk for hours what the problems are, but they were like, we know better. And right now the US market is just flooded with this mycelium on grain basically that doesn't have these active compounds that actual mushrooms in the wild or the fruiting bodies would have. And it's not a really common in Europe or Asia or other, other parts of the world, but Americans love of this and it's, it's about 10 times cheaper to produce and that's probably why. Why it's a thing.

SHAWN STEVENSON: Alright, so with all of this said, what is in, let's for example, use your think coffee blend. What's different about those mushrooms in there? What's different about the coffee?

TERO ISOKAUPPILA: Yeah. Four Sigmatic uses all organic products. So let's start there is like, if you're a chef, you wanna start with good ingredients before you start cooking anything else. So in the case of like, let's say our original mushroom coffee and the coffee products, we start with small co-op Honduras. You know, organic coffee from medium altitude, water wash, all the good stuff. But the point is like coffee's a very heavily sprayed crop with other things like you probably don't want glyphosate in, in your daily cup. Right? So let's start there. And then you add the functional ingredients, in this case mushrooms, like lion's mane, or be it B12 or probiotics or L-Theanine that we make this symbiotic kind of synergistic blend that is, is, is a lot of energy, mental focus, all the good stuff, immunity, gut health.

But yeah, the mushrooms, they're either wildcraft there or naturally cultivated on tree logs. You know, sun, dried sun gives them vitamin D, you dual extract them. So there's two phases and you make it into this powder. And what's cool is even though it's organic, we test the final product again against heavy metals and pesticides 'cause like you trust but verify, you know, there. You know, you see an organic farmer and my family are farmers, so you like, oh I, you know, they do organic farming, but you don't know what the neighbor sprayed through the wind or something. So you just wanna make sure after the product is done is before it gets shipped into stores, like Whole Foods a Target or a website, whatever, before it gets released, it gets ched to a third party lab to make sure that it's kosher, as they say.

SHAWN STEVENSON: Yeah, that's, that's the definition of going above and beyond and it's noticeable. And you guys really set the bar in this field and now of course there's so many other companies coming in and it's, I just want to reiterate how important it's to do your homework and, you know, this is something that, again, I've been utilizing Four Sigmatic for probably eight years now. I think somewhere around there. And I started off using the mushroom alixrs, you know, the Rishi and the cordyceps lines mane. And my wife was drinking the coffee. And I hadn't drank, I never drank coffee in my life. Really? And because of a childhood experience, which I shared with you.

My grandmother, I took a sip of her coffee one day. I was like, what is wrong with you? You know? 'cause it was so nasty to my little five-year-old fish stick chicken nugget palate. And I never, I swore it off, but then I saw my wife really enjoy it and look forward to it every day. She said it was so amazing and I decided to give it a shot. And so, you know, I fell in love. Mm-hmm. It was like love at first sip. And also I shared with you my youngest son every day off because at school, you know, when means he's got school, we kind of just get to breakfast and you know, get him to school. But every day that he has like a longer morning, he asks for his Rishi hot cocoa.

Right. And so it's just a big part of our family's life. And by the way, if you're wondering where you can get four Sigmatic. You can go to foursigmatic.com/model. That's F-O-U-R-S-I-G-M-A-T-I c.com/model. You're gonna get up to 30% off. Up to 30% off. And they've got some great bundles. Again, they've got mushroom elixirs, mushroom coffees,

they've got incredible creamers as well that they have now. Just so many great things. And also he mentioned the TV show, the hit TV show on HBO, the Last of us. Guess who has a collaboration with the last of us? That's right. Four Sigmatic. This is bonkers. So this is the organic coffee blend. And it also has, this has cords appropriately because that's the mushroom of interest in that, in that particular TV show, which is based on a very, very popular video game. But you guys got an, an incredible collab with the Last of Us. And is this available online as well.

TERO ISOKAUPPILA: Yeah, online and select stores nationwide, you know, so for somewhat limited time as the, as the show is out, so get it while it's hot.

SHAWN STEVENSON: That's so awesome. So amazing, man. Like I'm so just like, this just speaks volumes again about the integrity, the quality, and the things that you guys are achieving right now. And to circle back in this conversation in connection with these medicinal mushrooms and longevity, this conversation is on fire right now. You know, people looking at how can they not just extend their lifespan, but their health span to live functionally healthy for a lifetime. And there's so much data and also just historical use with these medicinal mushrooms and log live cultures. And so I want to talk a little bit more about some of these connections with medicinal mushrooms and longevity. Are there particular medicinal mushrooms that are more notable for people to be interested in trying out researching that can support their longevity.

TERO ISOKAUPPILA: Yeah. Longevity is obviously an umbrella term for a lot of things. There's different body systems and, and how our brain or nervous system operates is, is different than, than, let's say our gut or cellular health. But they're, they're all connected. So in the case of like the, like mushrooms, like lion's mane, it's about the nervous system and the brain. Sadly, a lot of longevity issues come down to things like various forms of dementia and that can start 10, 20, even 30 years before you get any symptoms. And what's the health of those connections. And I think for that reason, lions mane is interesting for its ability to support cognitive function. There's a, actually, in natural products, there's not that many human studies.

It's all like rodent studies or in vitro studies, but there is a, there's a couple notable human studies with this Lion's Mane mushroom, particularly on like 50 to 80-year-old, um, people with mild cognitive impairment. So they're already starting to get those symptoms that we sometimes see our parents or grandparents have. It's so sad. It's so sad when that happens. 'cause it's, it's one of those things where the person experiencing that pain doesn't know they're experiencing it. Like they're not self aware about, you know, whatever mild cognitive impairment they have versus if you have cancer, you're well aware that you have a problem there. Right. So the study showed that over six, eight and 12 week period, their cognitive scores went up every week after taking 500 milligrams of lion's mane three times a day. So 1500 milligrams per day.

And then after 12 weeks they started getting placebo. And the results drop in the following four weeks, like a stone after stopping taking it. So that's huge. The other one you mentioned, like things like Rishi, they support stress and sleep and we know that the sleep you would know better than anyone else in the world is such an unlock. It's an Archimedes liver of good health and longevity and you, you can't really quantify that, right? So working on that HBA axis and the stress response and hopefully helping you get deeper delta face sleep and what can then unlock to your hormones and to your mood and just generally your stress levels, right? So these are, for example, couple mushrooms that are so, so, so powerful. Lion's mane and Rishi for longevity. There's many others, but you know, just to highlight a couple.

SHAWN STEVENSON: Yeah, that's awesome. Awesome. So I, this is, again, it's not this panacea. It's like helping and supporting certain things that support longevity. For example, your sleep quality. Mm-hmm. We know that this is one of the biggest determinants on how long you're going to live and how long you're gonna live. Healthfully is the quality of your sleep. And as you mentioned, we'll put another study up for everybody to see that's watching. But this really remarkable study found that Rishi in particular was able to support more REM sleep.

More non-REM deep sleep as well, improve sleep latency and all these different facets of improving our sleep quality. And it's not something that is coming like a, a hammer to knock

you out, right. Versus, you know, some other things that tend to be a lot stronger, in particular, some of these pharmaceuticals that create really like a pseudo sleep. Right. You're unconscious. But are you actually getting restorative efficient sleep and Absolutely not. And I, I experienced that, you know, back. Again, this is over 20 years ago now, but when I was dealing with, um, you know, a de a so-called degenerative spinal condition that was so-called incurable, I really struggled to sleep at night.

And so I had over the counter and prescription medications that basically try to knock me out because my pain was so bad it would wake me up at night. And, you know, funny enough, you know, in that struggle period that I was in, which was over two years, that was the biggest struggle for me, was just getting some sleep. And so I would wake up, it would take, I would wake up in phases basically. You know, taking those medications. It, it was like I was dragging through the day and eventually when I would kind of wake up, it was almost time to wind down again. You know, and many people experienced this, this struggle with sleep and you know, what we're doing is creating conditions.

And for me at the time, things I was doing during the day helped me to sleep better at night. Right? So changing, improving my nutrition. Getting adequate amounts of sunlight and exercise and all these things, and I start to sleep better. But what I wanna encourage people to do is don't jump right to something hard. Even something like melatonin. All right. Which is a hormone by the way, and melatonin absolutely has its place. There are tons of great studies. There are some efficacy there, but 10 people tend to, one of the most eye-opening studies on this is it doesn't reduce because that was one of the concerns before a lot of research came out on it, is that taking melatonin consistently would reduce your body's production of it.

And that wasn't found to be true. What it did do was reduce your body's receptor sites or the activity of it, being able to use melatonin. If you took it too often and too high amounts. So microdosing okay, but also I'm a fan of it in spot instances, you know, maybe changing time zones, you need to reset. Maybe you had a couple rough days and you didn't get much sleep. Spot instances. Something like Rishi is, it's therapeutic and adaptogenic, right? It's a tonic. It's something that you can use every day and it doesn't create any toxicity or, or, or bad side effects. It just improves over time.

TERO ISOKAUPPILA: Yeah. It's not sedative. It's not like if you drink red wine or use cannabis at night, it's probably actually not going to help you. It might, you might seem and think that you're sleeping better, but actually the quality of sleep, the rejuvenation of the sleep is not nearly as good. Your heart rate is higher. All that stuff. The same as if you take really strong sedative, so like Ana or kava, they definitely numb you down, but it's not regenerative in the way that things like Rishi are or other adaptogens like Ash Kanda or others and they, they really support the body body's own ability to sleep and rejuvenate.

So, and that's what we try to do. Maybe they're, some of these pharmaceuticals, they're stronger for sure, but because they're also isolated compounds or these unique formulations, they come with, you know, side effects. That's why you see these pharmaceutical ads and at the end there's like a whole litany of disclaimers, you know, and with natural products it's a lot, it's a lot more gentle, but then it's also more holistic and you know, safer in many ways.

SHAWN STEVENSON: Yeah. So in particular, so you mentioned if we're targeting longevity is something that's important to us. Definitely lion's Mane, definitely Rishi. And Rishi actually has a nickname of Mushroom of Immortality.

TERO ISOKAUPPILA: Correct.

SHAWN STEVENSON: Let's talk a little bit about that. Where is, where's that name come from?

TERO ISOKAUPPILA: It comes from a traditional Chinese medicine. You know, the funny thing is around the world. There's multiple medicine or systems before our Western medicine emerged and happens to be that the Chinese and the Indians were just the best at documenting it. It doesn't mean they were better or even earlier, but the Chinese, traditional Chinese medicine, TCM or the Indian Ayurvedic system, they were just like well kept and, and documented on how they thought about things working. And a lot of things they got right. Maybe not everything, but right. And in the TCM there's documentation for up, you know, over 2000 years, going back into the first TCM, kind of like bible, this material Medica listed

all these herbs, they call them, they call them herbs, and herbs for health. And they ranked them what's best.

And the number one herb was this reishi mushroom actually, and it was for 2000 years, it was considered this, this like, like sacred. Tool for both preventing and healing from things tonic, as you say, an imperial herb. And that's where this immortality came because it seems like people who would consume it on a regular basis would just live longer and they would just live forever and be happy. And that was the myth about, like the story about Rishi. And now obviously modern medicine have proven some of those functions, like why it worked and what can you actually, back then they thought it would heal everything and that's not the case. But they, modern medicine has figured out ways how things like Rishi Dermal Lucidum would, would heal our bodies or support our body's own ability to heal.

SHAWN STEVENSON: Yeah. You know a great example of this longevity piece is that the oldest organism alive, old, oldest living organism alive on planet earth right now is a mushroom. Is that right? Talk about that.

TERO ISOKAUPPILA: Yeah, they battle. There's a mushroom in Oregon that has existed for a long time. There's also a tree in California that have set to exist a long time. So they, people, people battle online, you know, people love battling, you know, fighting. What's the, what's the number one source of antioxidants? Who's the oldest organism? But yeah, these fungal species have listed, lived a long time. Fungi itself have existed for over 2.4 billion years. They were the first thing to come out from, you know, the oceans to the dry lands.

And for the first over a billion years, they ate rocks 'cause they need an external food source. Right. It's pretty crazy. But yeah, there is a honey mushroom in Oregon size of many hundreds of football fields where there's basically a forest growing on top of it, from it. And it's existed for. Many hundreds of years and yeah, they're, they have a lot of longevity themselves.

SHAWN STEVENSON: Fascinating. So is this also the biggest living organism?

TERO ISOKAUPPILA: Definitely the biggest. That's I think, without a doubt, and it's either the oldest or second oldest, organism that we're aware of.

S: So a big part of the impact or the connection that medicinal mushrooms have with longevity is this, again, this idea, this concept, this truth about being adaptogenic, right. But it's not just the world of medicinal mushrooms that have these adaptogenic properties. There are many other things. Can you talk a little bit more about what adaptogens are and also some of your favorite adaptogens?

TERO ISOKAUPPILA: Sure. Adaptogens are natural compounds that help your body itself adapt to stressors, which is awesome. And adaptogen, unlike many other of these buzzy online trends, it's an actual scientific term. It has a very, very, very scientific background. The, it started in the former Soviet Union. During the war, lot of people, including Americans, would give soldier stimulants and various substances to fight better, stronger, but often not longer. So when you take things like amphetamines, you have a big spike in energy, but then there's a huge let down or even addiction that comes out of these stimulants. So the, the Russians were like, there was this very talented lead scientists, Dr. Lazaro. And they were telling him, he is like, Hey, what can we take that would, would improve the soldier's performance, strength, endurance, cognitive ability, but wouldn't have a let down the next day that would have this regenerative purpose.

And Dr. Lazaro collected these amazing top scientists in the field and studied hundreds of compounds that had these famous legends and lures around the world to see that would actually have these measurable physical improvements. And then they coined this term adaptogen. And it's, it's now established as an actual scientific term to the point that even in Europe, you can call them adaptogens. In Europe, all everything is not allowed unless it's like super solidly supported by evidence. And there are many adaptogens two dozen maybe. If somebody says there's a 50, they're probably lying at this point. We'll hopefully find more evidence. But there is two dozen give or take of those. Some of them are very well known, like turmeric and Ashwaganda.

And then some are these things like Rishi or Ola that some people in the health food circles know. And then there's few that very few people know about. You know, you know, you would know like astragalus and things like that. But, there's plants and there's mushrooms that support this thesis and they need to fit according to Al and his original studies. They need to

be three things. They need to be non-toxic because there are things that help our bodies that on high doses or regular consumption become toxic. Even garlic, you can absolutely overeat raw garlic if you keep pounding it. So these are things that you could take daily. So in order to be an adaptogen, it has to be safe to be consumed on a daily basis for an extended time period.

They have to be non-specific, which is really hard for us Westerners sometimes to understand, but they, instead of being a sniper rifle, they impact our body's own ability and systems and restore balance in those like the HBA axis, you know, like our stress response and balancing that that function is how they operate. And yeah, and they have this two directional way how they support our body. So the immunomodulation is an example of an adaptogenic kind of pathway or function.

SHAWN STEVENSON: Right. So that's the third thing.

TERO ISOKAUPPILA: Yes.

SHAWN STEVENSON: Awesome. Awesome. I love how they broke it down in these categories of, you know, to fit in and to be a true adaptogen that needs to have these hallmarks. That's pretty powerful.

TERO ISOKAUPPILA: There's many amazing herbal medicines that are either stimulative or sedative and are not safe year round, and they're totally great like you should use them and to your advantage, but they're not adaptogens. So there are these creme de la creme, you know, 20 something things that are also scientifically backed that they support things like cognitive function or immune function or you know, strength and endurance like. The Shera berry and the ability to improve cardiovascular health and, and these things just make them magical.

SHAWN STEVENSON: Yeah. And you kn you know, a ton obviously, about adaptogens. You actually wrote a book on this. What's it, can you share the book, please?

TERO ISOKAUPPILA: Yeah. Healing Adaptogens. You can find it at any bookstore or online.

SHAWN STEVENSON: Awesome. Awesome. Incredibly insightful. Again, what you've been doing is like really creating the like quintessential guide to a thing. And now your, your newest passion is dealing with one of our biggest issues that we're experiencing as a society right now. And one of the things that really in many ways is robbing us of various aspects of our longevity. You know, the average human right now is essentially swimming in a chemical laden soup. And there are a lot of hormone disrupting compounds that are just. Billions of tons are in our environment, so they're showing up in our food, our clothing, our furniture, our water. The list goes on and on. We really can't escape them.

And many of these compounds are actually coming in one of the most innocuous, like just like blending into the environment products that we use to make so many things, which is plastics, right. And so many people have heard of things like bisphenol A and BPS as well. And these are these kind of plasticizer chemicals that are just certain parts of what make this fossil fuel into something malleable that we can, you know, create all these really cool things. But what, at what cost? Because the fallout has been enormous. We know that compounds like BPA, for example, and again, we'll put up everybody's watching the video version, we'll put up a study, deeply impacts things like fertility.

Right. So now we've got more and more studies affirming how exposure to these compounds and plastics can disrupt human fertility. Also this can lead to issues with weight gain and obesity being in this category of obesogens. Right. Obesity causing agents that are kind of epic caloric. They're beyond basic calorie management. They alter our metabolism in, in a way that makes it harder to lose weight. And so we take this stuff for granted, and now we're at a situation where we've gotta do something about it. Can you talk about the current state of affairs with plastics and why you decided to make this another thing that you're focused on to make change with?

TERO ISOKAUPPILA: Yeah. I mean, plastics are made out of various forms of fossil fuels. There's alternative ways to make plastic. I'll touch upon that in a second. You know, basically dead trees and dead dinosaurs and dead animals become oil. And these oils are con, you

know, change into these polymer structures. And there's many kinds of polymers. And even within those polymers, there are many kinds of polyethylene and polypropylene within the same structure. And, we have transformed our lives for better or for worse, with those polymers. The world relies on plastics. So, you know, be it medicine, sterile medicine our cars have plastic.

If our cars wouldn't have plastic, they would take more gas and energy to drive. Um, you know, we, we don't need to kill as many animals as we used to to build stuff. So we need plastics but the plastics came to the problem is that these structures are not native to environment, which means they degrade very slowly. And depending on the plastic and the type of plastic it can take from at the short end, some decades to in high end, many hundreds of years to break down. And before they break down, they go from like, think macro plastics to microplastics, to nanoplastics, to back to earth, right? So, but along the way they get smaller and smaller and smaller.

It takes a long time. So while they're getting smaller, they'll be ingested by fish, they'll be ingest, they will be getting to our systems, to our balls, to our brains. And it's a complete experiment what happens, like nobody knows. And we're getting now, in the last few years, these early research papers around the world showing the impact for cognitive health, for reproductive health and what these, you know, basically we're ingesting like a credit card size piece of plastic every year.

And at this pace, like in few decades, there'll be more plastic in oceans than fish. So it's getting, it's exponentially getting bigger and we don't really have end of life solutions for these plastics. And because they're just accumulating so heavy, they're end also ending up in our food systems and our bodies. And again, like we know some things that they're doing like the reproductive health, but it's a complete experiment. Like nobody knows exactly how bad it is, but the amount of plastics around the world are just exponentially growing. 'cause there is no end of life solution really for them. But then at the same time, we don't have a solution to not use plastics in our day-to-day products.

SHAWN STEVENSON: We're gonna talk about the environmental issue, which the thing is we are a part of the environment as well. Yes. And we tend to like separate ourselves from that. But you mentioned the plastics showing up in us, and particularly you mentioned in our balls. And I pulled this study up for everybody. This was published in the journal, toxicological Sciences and examined 23 human testicles and found a shockingly high amount of microplastics in all of them. I don't know why there were 23 instead of 24. That was one of my questions. Okay. There's, there's a missing..

TERO ISOKAUPPILA: Someone dropped out.

SHAWN STEVENSON: Or there's a missing ball. This is out here on the streets. And the researchers found that the testicles had plastic concentrations of about 330 micrograms per gram of tissue on average. And the research has found 12 separate varieties of microplastics in the testicles with polyethylene, as you mentioned earlier, being the most common, common one. This is used to make plastic bottles, plastic bags, and things like that. And so again, but this is just, that's one organ. Everywhere they looked in the human body, they found plastics, microplastics, nanoplastics, including the human brain, the heart. As noted in the New England Journal of Medicine, they looked at over 250 patients, looking at their cardiovascular health and found polyethylene plastics were detected in the carotid artery plaque of 150 of the patients.

And so what they found, this is a conclusion of the study, patients with carotid artery plaque in which micro and nanoplastics were detected had a higher risk of composite of myocardial infarction, stroke, or death from any cause after 34 months follow up than those in whom micro and nanoplastics were not detected. So there's a clear, very, again, it's not causation, but a very clear connection between these microplastics and our exposure and cardiovascular issues, which is the number one cause of death. Today. And so let's, let's talk a little bit about what we can do for our own bodies. And also what you're working on to do something about all the plastics in our environment.

TERO ISOKAUPPILA: Yeah, we can address it upstream, which is the whole food system, and they end up in fish or they end up in our soils. And that's one thing, but that's a big problem.

That's like a, you know, global huge thing. But then there's downstream effects, what you can as a consumer do. And then there's many things you can do, can do. And I would start with stuff that you consume the most and focus on the things that are daily big volume drivers. And I would also focus on places where there's the most amount of leaching of these microplastics and how to address those. So let's talk about both. I think no matter what your diet is or what your lifestyle is, the probability is that you're consuming a lot more liquids than you are of solids.

And starting with water, the most important part. And just like avoiding plastic bottles. And they're difficult partly because the type of soft plastic gets used on those water bottles, it leeches a little bit easier. And also the sun, they're exposed if you, if those water bottles at any point of the transportation after bottling, the transportation get exposed to sun, it leches more. So you really wanna not use plastic cups, plastic water bottles, and you really wanna avoid bottled water unless it's in bin and glass. Because the sun impacting also the water molecules and how, how they absorb. But more importantly, on what those Mickey Mouse shape, H2O's keep leaching from the bottle combined with the sun because UV is a one way how these polymers start to slowly break and therefore also leach microplastics into the waters.

The water molecule is kind of hungry, hungry hippo. It keeps wanting to attach to things like salt and, but also to, in this case, plastics. So water is, I would actually start there. And not just water, but also coffee and tea. You wanna avoid any form of plastic kind of cups for coffee, or if you do tea, don't use tea bags. A lot of people don't realize, but all tea bags have plastics in them. So when you're pouring that boiling hot water into the plastic, it's gonna leach really easily. So you want to use. Loose leaf. You want tea or instant tea, or you want to use things like metal when you're preparing your coffee or felt you wanna avoid those kind of plastic cups you get at the hotel or at sometimes Starbucks or whatever. So that's, that's kind of a key thing that anybody can do is focus on the liquids and avoiding, water bottles and tea bags.

SHAWN STEVENSON: Yeah. I, this is great advice. Again, this isn't something where we are trying to run off planet because we're still gonna be exposed to, to plastics, microplastics, but

let's do something to minimize our exposure. A little bit, especially again, in, in these, the liquid association in particular. That can be a great initial step that can do a lot of, of help with minimizing your exposure. And so let's shift gears now and talk about what you're doing to address this larger societal issue with plastics and this kind of buildup in our environment because basically we're creating all these plastic products and they're not going anywhere. And the magnitude is like, it's unbelievable how much plastics that we're creating each year and they're just compiling and compiling. What are you doing and what are you working on as a viable solution for this?

TERO ISOKAUPPILA: Yeah. Fungi are cool because they're these extra MA fields. They've learned to survive themselves in different climates. I mentioned how for the first billion years they ate rocks 'cause they needed an external food source. But there was a point in, in the planet's history when trees would start piling up and there was nothing to break down. There's this structure in trees lignin, which is really hard to break down and nothing would break it down. So the world started piling up. Trees upon trees. And it became an issue until these fungi learned to evolve, to break down this very complicated lignin structure. And what happens to be is that the carbon backbone of lignin is very close to the carbon backbone of plastics.

And that totally makes sense 'cause debt trees make oil that makes plastic. So they're very similar. So about 15 years ago, somewhat randomly, a group of Yale undergrad students went to Amazon on an expedition and they found this plastic eating fungi. And ever since in the last 15 years, top academic institutions have had groups of scientists discover more of these plastic eating fungi. And basically the fungi just was like, well, I used to eat pizza and here's pasta, pizza being the ling in the trees, and pasta now being the similar back carbon backbone plastics. I was like, ah, I could eat that too. And they evolved because plastic start accumulating in nature. So being in landfills and whatnot, they learned to build these enzymes that would break down these plastics.

And academia has been working on this for a while. And about four and a half years ago, me and my friend Mickey Agarwal, we, we started working on it and figuring out how to bring these plastic eating fungi and help solve some of the biggest, both environmental, but also

just like human issues that we faced with these single use plastics, particularly soft plastics like polyethylene polypropylene that create like 70% of the problem. And we went round the world and found the leading experts of ology and, you know, remediation and biology and engineers to do r and d for these plastic eating fungi. And our first product is essentially like a diaper, a micro digestible diaper where these micro, these fungi digest the diaper 'cause diapers are the number one household waste item.

And it's a number three waste item in landfills in total. And what's actually crazy related to the human health now adult diapers have passed baby diapers in, in waste amount because people are living older, but they're in worse shape. So they're using diapers and adults are now in diapers, but it's such a taboo. People don't talk about it, but it's like a billion dollar industry to create these adult diapers around the world. And they, they just have these plastics and it takes, you know, 400 years to break down. And each baby, new baby, like I have young babies, which inspired to do this, they go through 6,000 diapers and they create like a pile of diaper each, each baby, and takes 400 years.

So every disposable diaper ever created is still today in a landfill. And then these end up in our food systems and waters and soil. And, and then we ingest them one way or the other and there's no end of life solution for them. But now there's these friendly fungi that can help solve it. It's obviously a massive global trillion dollar thing that one little company can probably, you know, not solve alone. So that's why we're also looking to publish a white paper on it and hopefully inspire other scientists and teams around the world to innovate further on this area of, it's called micro remediation, or you remediate with mushrooms of these problems and toxins in our system.

SHAWN STEVENSON: So is this why I saw you and your family were modeling some diapers?

TERO ISOKAUPPILA: Yes, that was my wife's ideas. Like I've been working on this for four and a half years and when we launched the company's called hero diapers.com or Hero Diaper. And when we launched it, she, she said, is like, you know, people don't know about this adult diaper thing and nobody knows about diapers in general is we should our whole family. So

me, her and our three kids all wore diapers and on a photo shoot, that was my first, and maybe, hopefully last time I ever wore a diaper. So this is.

SHAWN STEVENSON: Yeah, I mean the thing was, it looked very cool, it looked very swaggy. Your family looked beautiful, but it's like if you zoom, like they're all in diapers and the kids, you know, you have three small kids. And so, you know, when I saw that I was like, I know that there's a couple rappers, it's like little baby. There's Dub baby. And I was like, is he trying to be shroom baby? You know, it was my thought, like, is he trying to brand like, you know, with the diapers? And to hear the bigger story behind it was really like eyeopening for me because I had no idea about the adult diaper issue.

TERO ISOKAUPPILA: Yeah, and I mean, it's, it's huge and our society has a lot of problems and we like to run away from them. But, hopefully more and more people are inspired to come up with solutions instead of creating new video games or apps. We use our limited time here on earth to figure out how to regenerate the problems we've created and have in live in more harmony with nature.

SHAWN STEVENSON: Where can people get more information on this?

TERO ISOKAUPPILA: You can go to hero diapers.com and, and there's a science section you can read more. And hopefully soon we'll have a peer reviewed article, kind of a white paper on it with leading, outside experts on the science and how it works, and we can share it with the world.

SHAWN STEVENSON: Can you spell it?

TERO ISOKAUPPILA: HIRO, which is the name of my co-founder, Mickey's son Hero. He, she's half Japanese, half Indian, and, and the son's name is Hero. And. And that inspired the whole, whole idea is that we're giving our kids a world. And the problems we're like punting a lot of our problems from economy to environment to health. And we're leaving our kids with the biggest bag of doo doo, you know? And it doesn't matter, as long as we're fine, you know, outta sight, outta mind, you know?

SHAWN STEVENSON: Yeah, yeah. And that analogy of biggest bag of dooo, like that's, that's very fitting.

TERO ISOKAUPPILA: Yes.

SHAWN STEVENSON: Because I had no, again, I had no idea about the landfill and the diaper amount. And this, again, so much of this is just going on in automation and we just we're born into this. So we don't really think about how we're associating with these different products and how we associate with each other and how we associate with ourselves and our health. And so, you know, every time I talk with you, I. My eyes are open to a new dynamic about all of this stuff and our place in it. And so it's so inspiring to see that you are stepping up to do something about one of the pervasive issues again, that we're, as you just mentioned, most people are unconsciously just punting to future generations. And so it's really up to us to make these changes right now.

So man, I appreciate you so much. Again, if you want to get your hands on some four Sigmatic, they're at select stores nationwide of course. And you can go to four sigmatic.com/model for up to 30% off so that you know it's a little bit, you know, if you don't wanna go to the store like Whole Foods for example, but you get up to 30% off when you go to four sigmatic.com/model. Where else can people connect with you? You mentioned hero diapers.com. Yep. HIRO diapers.com. Social media?

TERO ISOKAUPPILA: Yeah. I am Tero on Instagram and YouTube on my YouTube channel. I. Talk more about culture and parenting and family, but if you're interested in that, go check it out. Awesome, my man.

SHAWN STEVENSON: Thank you for coming to hang out with us.

TERO ISOKAUPPILA: Thanks for having me.

SHAWN STEVENSON: Awesome. The one and only Tero is socap. Thank you so much for tuning into this episode today. I hope that you got a lot of value out of this. Mushrooms mind blowing, mind blowing stuff and understanding. Again, this is a whole kingdom. This is a

whole separate kingdom. We can't simply throw mushrooms into a, a vegetable category, a food category. It's so much more. It's really part of this matrix that creates life here on planet Earth, and it's truly powerful, incredible, incredible insights. And again, if you wanna get more information on Teros award-winning company, addressing this issue with plastics in our environment, definitely check out Hero Technologies.

And of course, you could find all of the incredible four Sigmatic products at four sigmatic.com/model. Again, you get up to 30% off, at least 10% off storewide, but up to 30% off with various bundles and things like that. So definitely check him out there as well. And again, I just want to emphasize that for Sigmatic and Tero, he's been a part of my life for almost a decade now. Time has kind of flown by just truly somebody who is based on integrity, constantly learning and constantly sharing is one of the most giving. And thoughtful people that I know as well. Huge heart. And you know, we just wanna support people like that, that are doing the right thing for the right reasons.

And so I appreciate you so much for tuning into this episode. We've got some amazing masterclasses and world class guests coming your way very, very soon. So make sure to stay tuned. Take care, have an amazing day and I'll talk with you soon. And for more after the show, make sure to head over to the model health show.com. That's where you can find all of the show notes. You can find transcriptions videos for each episode. And if you've got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome. And I appreciate that so much and take care, I promise, to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.