

Caspar Szulc:

Hello there fellow healers and truth seekers, Caspar Szulc of Innovative Medicine. Ready to jump into a really interesting subject on today's episode. Today's discussion centers, around something that's been described as magical out of this world, cancer busting, immune boosting and brain balancing. What new drug are we getting into today? It's not a drug at all, or at least not a chemical one. We're talking about Mushrooms and today's guest has been around Mushrooms, his entire life. His father, Jeff Chilton was an instrumental figure in the creation of the now booming medicinal mushroom product category. And he's carried on the torch to produce some really high quality medicinal mushroom products that do a host of things. We'll get into what they are, as well as his thoughts on psychedelics and healing. What to look for in a mushroom based product. Why Mushrooms from China really get a bad rap?

Caspar Szulc:

And I even try to pull out an answer on his favorite Mushroom. This is the story of Real Mushrooms with Skye Chilton. I'm here with Skye. He is the founder of real Mushrooms. And this is a really interesting topic. We're going to talk about this Mushrooms. They're everywhere right now. You've seen them. It's a big industry, but there's a lot to talk about. I want to start with your story because I was reading about it and this is a family business you grew up in Mushrooms. So can you give us some of that insight of what it was like, and just go into the backstory because your father started the company, you were out forging as a little kid Mushrooms. What was that like? What's your story?

Skye Chilton :

Yeah, so my dad, he came out of a university, started working on a Mushroom farm was probably one of the only people that actually enjoyed it.

Skye Chilton :

It's not a very fun job when you're shoveling compost all day and you're in steamy grow houses. But for whatever reason, he really thrived in that and worked his way up at a Mushroom farm in Washington state ended up becoming the manager. They sent him over to the Netherlands to do an apprenticeship there, of learning the different growing techniques that Dutch people are using any kind of brought that back. And they are growing primarily the button Mushroom. So on, we all see in the grocery store, but they also on staff there, they had a Japanese scientist who is growing other culinaries. So this was in the early to mid seventies. And so they were growing Shiitake and they're growing a Gnocchi. And so they were one of the first farms in the US to try sell Shiitake.

Skye Chilton :

And it just didn't go very well. The market wasn't ready yet, but that really showed my dad that there was this whole other side to Mushrooms that wasn't just the Button mushroom that we all see. And so that kind of took him to Asia, where he started traveling around in the late eighties and going to China and got him into the medicinal side of Mushrooms and going kind of conferences at that period of time. There wasn't a lot of white people going to China and he was kind of the, one of the only people at these conferences. And one of the only white people that isn't and making connections then really started learning more about the medicinal side of Mushrooms. Then, you know, he found the difficulty in quality from a very early time when they were people there would give them samples and say, Hey, this is Reishi Mushroom,

Skye Chilton :

Shiitake, this is my talking's like holding a Brown powder, you know, and this is like, how do I know that? So that set them out on really trying to figure out what was in these products, you know, what were in these extracts? How do I quantify that? How do I know certain compounds are there? How do I verify that this is actually a Reishi? And so he started selling and importing Mushroom extracts kind of throughout the nineties and, and a big component of that, that, that he really wanted to do was organic cause he was into organic foods. And so in the mid nineties, he brought organic certifiers to China and started setting up the very first organic growers in China. And then by the late nineties he was selling organic Mushroom extracts to the North American market. And so from my perspective, growing up through us, it was definitely a, I kind of avoided it for a long time. It was not something I, you know, it's like your dad's the Mushroom guy and it's all that kind of stigma that goes along with that. But you know, we were going out locally and forging Mushrooms and fall, which is just amazing. Like we've got mountains nearby and forests and just amazing, pristine growing areas. So you can go out and pick Mushrooms and cook them up and yeah, it's just awesome stuff. And then, you know, I was helping my dad in the business. I'm sure you might've been helping your dad as well.

Caspar Szulc:

Absolutely. I totally get what you're saying. And I too had a kind of disdain a little bit for medicine and my dad was the alternative medicine dude. Right. Who got out of like conventional was using homeopathics and everything on me when I was little. And that was weird. And I wanted to get so far away from it and look where I am now look where you are now. Right. So, so weird. Where did it come back? Full circle for you to start real Mushrooms?

Skye Chilton :

Yeah. So yeah, speak to that is like, yeah, I went, I went into computers. I was like dove right. Wanted to like create video games and just be a programmer. And I did that for probably 10 years out of school. And then around kind of around 2010, I really started getting into my own health and just eating better. I wouldn't say I was overweight, but you know, had a few extra pounds and was sitting at a desk and, you know, going out to restaurants for lunch every day, not eating the healthiest food. And through that progression of just changing my diet exercising again, I was, you know, an athlete in college, but that kind of just fell to the wayside and, but bringing that back in was great. And so it was really like transferring my health and as well as starting out in my own business, I had another business with friends.

Skye Chilton :

So my dad and I really connected over business and, you know, what, what's he doing? What am I doing? How does that kind of relate? And I started, you know, really looking at his business a lot more and, you know, helping people it was just an amazing product very passionate and, and I sort of saw this hole in the market where, you know, a retail line can really come into play there. And yeah, just as I started almost relearning a lot of these things from my childhood of maybe, I didn't know why at the time we were like eating Mushrooms a bunch and things like that. Now I was, I was really learning, you know, there's like really good health benefits, whether you're taking a supplement or as a food. And you know, it's something that I think all of us in North America need to add more into our diets regardless of how you're taking it. It's just an amazing food. It's, you know a recycler, so it can grow on bio waste. Yeah. And it's, you know, sustainable there's so many good things when you look at the actual growing practices of it, of how just simple it is.

Caspar Szulc:

Yeah. I want to go into the art of growing Mushrooms, but first I want to just kind of lay a baseline out of what are the benefits of Mushrooms for people listening and may not know and just saying, okay, I add Mushrooms into my meals every now and then I'm not really a fan when I have Chinese food and Mushrooms are anyway taking them out. Like what, what are the benefits for the body to intake Mushrooms? And why are they considered medicinal?

Skye Chilton :

Yeah. So Mushrooms they're primarily immunomodulators. So they have compounds in them that are going to help either modulate our immune system, which is regulation. So they try to keep our body in homeostasis. So that could be something like, you know, if we're sick and our immune system is suppressed, it can help to bring that back up. Or if you think of something like allergies per se, which is like an overstimulation of our immune system can try to reign that back in. And so most of the mechanisms of Mushrooms primarily revolve around our immune system and regulation. Certainly there are good minerals and vitamins and whole Mushrooms are for eating them as food, as well as they're a very good source of dietary fiber. So there can act as a prebiotic as well for our gut. But for the most part it's immune system regulation, there is some specialties for certain Mushrooms that we can definitely get into.

Caspar Szulc:

Yeah, no, I want to hear about that. I want to get to your favorite Mushroom if you have one, but we won't put you on the spot just quite yet. Now there is an art form to growing anything in nature. Even before we started this, we started talking a little bit about that in order to have any good natural supplement therapeutic solution or anything, you got to start with a very high quality ingredient that's going to come from nature. So how do you real Mushrooms do that? How you processing this, how are you growing these Mushrooms so that they are of the highest quality, what does that entail? I've never actually grown a mushroom before I've seen them in the wild and I get that forging must be fun, but how does it translate into something you're going to use for a medicinal solution?

Skye Chilton :

Right. Yeah. So Mushrooms are bio accumulators. So they pull out of a lot of whatever food that you give them. So you want to make sure that your substrate is very clean to begin with. But for mushroom growing it's important to distinguish how, depending on how you use it, every using it for food, or we're using it for supplements, because if you're buying Mushrooms at the grocery store, a majority of what you're purchasing is water. So Mushrooms are generally 90% water weight and this works so we can grow those fine in North America. We can sell them into the fresh market. Totally fine. But when we're looking at a supplement this is where the economics of mushroom growing really starts to come into play. So that fresh mushroom when you dry it out as now 10% of the weight meaning you need to get 10 X, the price in that fresh market value as a dried product.

Skye Chilton :

And this is where it starts to break down. And this is what my father realized at a very kind of early period. And he knew that, you know, he had to go somewhere else for Mushrooms. And this is one of the reasons is that took them to China. So China has a very rich history of mushroom use, you know, thousands of years of use Chinese medicine, as well as they were the first country to start cultivating these Mushrooms, you know, over 800 years ago, they figured out how to cultivate Shiitake. So China now grows over 90% of the world's Mushrooms. And so we have all of our Mushrooms come from

China. There's a lot of stigma around that that we can get into. And we definitely do a lot of testing to make that they are very clean and very pure. But it comes back to very simple growing practices.

Skye Chilton :

So most of the Mushrooms grow on a wood substrates, primarily sawdust. They can get an enriched with different materials but they primarily grow on wood. And then once these Mushrooms are grown, they get harvested, dried and taken to state-of-the-art facilities that are multimillion dollar extraction facilities, false stainless steel, water treatment, all of that. But it's a really interesting process to go from basically bamboo shade houses that are out in the middle of these kind of pristine environments that are well aware from, well, well, far away from, you know, the industrial cities and things like that. We, when we go over there, we usually go over there every year and we'll be driving for hours kind of out into just like passing tea farms, big bamboo forest, all kinds of stuff. And we end up in these tiny little farms. And so it's going from this very, almost low tech environment that is very in tune with nature to, you know, state-of-the-art extraction facilities where it's getting processing process cooked up with hot water or alcohol concentrated. And then we'll take all the moisture out of that. And that leaves us with the final extract powder.

Caspar Szulc:

Got it. And it is true. China has a terrible stigma when it comes to supplements and being it, you know, I've created, it helped to create supplements and sometimes they are coming from China. And you almost don't want to share that with the world, but, you know, tell us what are the quality assurances you're taking? Cause I know there are wonderful thing still coming out of China. Yes. There's abundance that have toxins in it. Use heavy metals to kind of speed up the process and there is the industrial side to it, but there's also a wonderful rich tradition of producing high quality things that can come out of China if you find it. So how are you maintaining the quality from, you know, a place that has a stigma for being poor quality and toxic?

Skye Chilton :

Yeah. At first is like the environment where they're growing. So we make sure that is totally clean as clean as we can get. And then of course, once these Mushrooms are harvested, they get tested for pesticides and heavy metals. Once the finished extract powder is completed, it gets tested for pesticides and heavy metals again. Then we're importing them into the US we send them out for testing again, and it's all third party laboratories. And then depending on if it's my father's company where he's, you know, he's selling it to other companies to use in the finished products, you know, those companies are going to be testing it again. Usually when they receive the ingredient to when they get the finished product. So by the time a consumer gets it, you know, it can be tested for maybe up to five times for pesticides, heavy metals, microbiological contamination.

Skye Chilton :

And you know, it's, it's a good point about the diferent areas. It's funny how, like nobody points out things like, I don't know, tumeric or, you know, which comes from India and it's like, no, one's pointing that out. But some of these herbs, this is the regions that they're primarily grown in, or, you know, in the case of Mushrooms, you know, with such a rich history in China, it's like they have research institutes that are just dedicated to Mushrooms. You know, there's probably more researchers in China than the rest of the world combined. They just have so many people and the industry there is so much bigger in terms of just general consumption. I mean, when we go and visit China, I probably eat more Mushrooms

there in two weeks than most of the rest of the year. You know, it's just, every meal has some sort of mushroom dish which is just amazing and the number of varieties and like there's so much cheaper to compare to, you know, the small scale just due to the economics and the volume of the scale. That's out there where it's like very few people buy Shiitake here. So they're super expensive. I would love to get Shiitake like regularly, but the price is tough.

Caspar Szulc:

It makes sense. We work on a global scale. Now it's such a global economy and the places that have a tradition for growing these things and are able to still hold on to that tradition, tradition that that's where you'd want to go to again, if you want to Ayurvedic herbs, a lot of times India is still the place to go for that. And China is Mushrooms.

Skye Chilton :

Yeah. That's how it goes.

Caspar Szulc:

As a consumer, if I, if I were looking, this is a saturated market right now, I mean, I go on social media and I'm getting targeted, left and right for different types of powdered Mushrooms versus this versus that. And there are so many brands. Can you break it down a little bit? What's the USP, what's the unique selling proposition of real Mushrooms? How are you differentiated in such a saturated market?

Skye Chilton :

Sure. So, yeah, like we were talking about, it comes back to quality and the quality materials that are going in. So, you know, one, it's always organic Mushrooms. And so when we're talking about Mushrooms, we need to remember that there's different plant parts of these fungi. So we have the mushroom, we have the spore and we have the mycelium. So the spore is kind of considered like the seed. It's out in the air all around us. There's always spores around. It's going to land somewhere, it's going to germinate. And then that germination will start to form hyphae, which then fuse into mycelium. And so the mycelium, if you think of that as the root system of this organism, it's the body of this organism. And then when the environmental conditions are right we see the mushroom which is also known as the fruiting body.

Skye Chilton :

The mycelium can be also called the vegetative body. And that is really important when it comes to products because we need to know what plant part that we're getting. And so back to the economics of mushroom growing and being as how we need to start with a dried ingredient to make an extract and Mushrooms are too expensive for this. What you will now see in the marketplace is that companies will grow mycelium. So they'll grow the root system of the mushroom on a grain substrate. So if you know of, do you know of Tempeh at all? So yeah, so Tempeh is a Indonesian food product where they take cooked soybeans and they inject the fungus on it. It grows out into a white grain cake and they sell that as food. So this is a similar process where you're taking either rice, oat, sorghum, it's getting cooked, it's getting sterilized, we inject the organism into it.

Skye Chilton :

It'll begin to grow my mycelium onto this grain log. And once that grain log is fully colonized, that gets dried and powdered and sold as a mushroom product. And so we need to remember that there's no

Mushrooms involved. And there's still all of the substrate that the mycelium was growing on in there. And so what my father did back in 2015 was he went out into the marketplace. He bought a bunch of products. He then tested a whole Mushrooms as well as his own extracts. And we looked at Beta Glucan content, and so Mushrooms and mycelium, the cell wall is made up of beta glucans. And so when we look at that, we can use that as a marker for fungal content. And so what he found was that Mushrooms themselves, the whole mushroom very high in beta glucans, very low in alpha glucans, alpha glucans are things like starches and glycogen cellulose.

Skye Chilton :

And so with these mycelia grain products where you're growing the mycelium on the grain, what they claim is that the mycelium will consume the majority of this grain. And what you're left with is mostly mycelium. But what we found out in the results was that there was very low levels of beta glucan, very high levels of alpha-glucan. So almost the opposite of what a mushroom has, which really comes back to showing that this grain substrate is really not fully consumed at all. And so most of the product was actually starch.

Caspar Szulc:

Do you think there's a myth around mycelium? Cause I'm actually looking at a book right now, Mycelium Running, and a lot of people, you know, are throwing that word around. I think right now mycelium as if this is what you're looking for, but you're kind of saying you're not, that's that's to the contrary of what you're talking about right now.

Skye Chilton :

Yeah. So when you start to get into the research you'll see like most of it is based around the mushroom for the most part, but there is, I mean, there's a lot of good research on mycelium. So you have Cordyceps. Yes. For, for example back when, you know, Ophiocordyceps sinensis which is the Caterpillar fungus, if you're familiar with that, it's the most expensive mushroom in the world. It costs around \$20,000 a kilo give or take. So you'll see products touting it, but it's not in any supplements, just do the price tag. But the Chinese have been trying to grow this for probably 40 years now and have recently figured out how to do it. But originally what they ended up with was a pure mycelium. So instead of growing it on a grain, which is a solid substrate, you grow it in a liquid. And so you can grow it in, on kind of nutrient bath.

Skye Chilton :

And at the end of that process, you can drain off the water and you get pure mycelium, almost like a tofu cake, if you think of it that way. And so the Chinese came up with Cordyceps Cs-4 which was a pure mycelium ingredient. And if you look that up on pub med, you'll find a lot of research around it. It got approved as a drug in China. So there is, there is good research on mycelium and this is kind of where the confusion comes into play because you'll get a lot of pointing at, Oh yeah, there's lots of mycelium research, but it isn't consistent still. Isn't consistent with the products that are out there. So if a product is, you know, mostly grain or more than 50% grain, is it really a mycelium product is a grain product. When you look at, you know, the difference in compounds.

Skye Chilton :

So mycelium in general will have less of the beta glucan compounds we've looked at CS4 you know, it might be around eight to 10%, beta glucan versus say maybe 30% of the mushroom. But it still has low

levels of alpha blue can which are the glycogens and the starches and things like that. And so with you still see the opposite when we're talking about, say a cordyceps, mycelium that's grown on grain, and it might have upwards of 60% alpha versus say like four with the actual pure mycelium. So something is not consistent with that profile.

Caspar Szulc:

So it really breaks down to quality is in the end. And a lot of these, like in the supplement realm, in general, everything you have these products out there that are pushing out these kind of miraculous claim, but the quality isn't there, the research may even be behind many of the ingredients use, but if it's not of the same quality, it's not going to have the same results. So I think, you know, that's, that's a big part of it when you're creating these you know, I guess they're tinctures, would you call them that real Mushrooms has, or?

Skye Chilton :

We do extract powders. So basically it's, it's a tincture at one point during the extraction process when it's getting concentrated and then we put it through what's called spray dryer, kind of, it's like a giant heated cyclone that has hot air going up and your liquid comes out the top and it evaporates all your moisture, leaving you with just the extract powder itself. So you end up not paying for any of the solvent.

Caspar Szulc:

Do you lean more towards combination or a single ingredients?

Skye Chilton :

That's a tricky one. So I mean, one of our best selling products is a combination of reishi, shiitake, maitake, turkey tail chaga, which are considered the main immune system boosters. So that's more of, you know, an immune product. And you know, there was there's actually an interesting study recently out of Australia that was last year that saw increased cytokine production for reishi, maitake when they put it in combination versus just solo. So it's, you know, it's hard to say, I, I think there might be, you don't want to do too many and you kind of get the dosage too low of some of these because there's other, what we always kind of call them as like kitchen sink products, when you get into marketing and now it's like 10 Mushrooms and 15 Mushrooms Mushrooms and more is better, but then your dosage is going down on all of them. And so maybe there's certain ones that you don't really need.

Caspar Szulc:

Yeah. I always found that creating any supplement that's a formula is more of an art form and you're trying to find the right ratios to it. Not just more is better. And you're actually looking for the least amount that come together synergistically or bioavailable and have the greatest effect. So, so I totally get that that more is not better in this case. And sometimes less is way better. Now let's talk a little bit about stress and Mushrooms as adaptogens. What have you found with the research and what you're looking at anecdotally and everything where Mushrooms are impacting, how we are now basically processing stress and there's a lot of stress in the world right now, a lot. Would you say that Mushrooms are an adequate solution and an adaptogen in itself when taken?

Skye Chilton :

Yeah, I mean, I think that's, that's a difficult question. Certainly we all have, you know, environmental stressors, we've got, you know, stresses is everywhere right now, whether it's just in our work in our personal lives in the environment around us. And I think, you know, Mushrooms can be part of that. Certainly there's one clinical study with lion's mane, where they showed improvement in stress and anxiety. I think that was a two to three gram dose of the, just the mushroom powder itself on extracted. So there's definitely some research there to support that. And, and certainly I think you know, as immunomodulators and adaptogens, having that regulation constantly influx to where if we are if there's something going to be, you know, stress us out or, you know, try and spike our cortisol and any way we can have that modulation at play right there and can help us to Mitigate some of those effects. Is it the thing with Mushrooms is, they're not necessarily something that you're going to feel right off the bat, you know, they're not caffeine, they're not aspirin. And that's kind of one of the tricky parts of that is what exactly are they doing? And so if I'm taking them every day, I just have them on hand, but it's like, if I don't, I don't get sick for a year. Is it, is it the Mushrooms? Is it exercise? Is it good sleep? Is it, is it all of the above? You know, it's, it can be a really hard to pinpoint unless, you know, you know, people have outlying underlying conditions that may be, or it's like, Oh yeah, wow. And they're doing regular testing and, and see different markers. So...

Caspar Szulc:

Yeah, some, I mean, some of the best supplements out there really are about those nuanced levels of improvement that most people can't tell. You know, we've had a lot of people take certain supplements that are meant just slowly adapt your body because the body doesn't work. Like you said, caffeine quick, but then you drop, you need more and you become dependent on it. So any good, I feel like supplements should be almost nuanced in its way and continue to you know, improve functioning. Now, one of the things I I've heard so much, that's even bigger than the topic of Mushrooms itself is psychedelics. And that gets connected to Mushrooms. I want to hear what are you, what is your stance on psychedelic microdosing? Right? You got Tim Ferriss, you got Michael Moore, you got all these people. I mean, I honestly don't have even enough information to have a true stance on it, but you're a mushroom guy. What's your stance on this?

Skye Chilton :

Yeah. I mean, I think it's great to see it moving in the direction of legalization sort of following the cannabis route.

Skye Chilton :

I think that's just great to start to decriminalize some of these substances and, you know, treat them a little more, fairly, and certainly with Mushrooms specifically magic Mushrooms, you know, you do have to be careful you, you know, the that as something that you're definitely going to feel and you know, we know why we know the active compounds, you know, we've got psilocybin in there and other smaller compounds. But I think it's cool that people are starting to learn more about this and experiment with it, whether it's in a microdose or, you know, a full size dose. And we're seeing some pretty amazing results in terms of, you know, treatment of depression, PTSD other conditions where traditional medicine is not working, you know, that conventional medicine or drugs just can't, isn't doing anything or, you know, can help with addictions and other, you know, it's so it's, it's amazing.

Skye Chilton :

And I'm surprised at how much strides have been taken recently. It's a really, you know, perceive it in a better light where it was just so stigmatized for so long and same with cannabis too.

Caspar Szulc:

Do you have a fear? It may go too far where we're, you know, or the, the claims themselves may start to get people. Cause I think that's the problem a little bit you're finding right now, I know in the medical community, this idea that many people are pushing the medical marijuana CBD is the cure all almost, and doctors are sort of like, come on guys. We're not, we're not knocking it even, but we are saying, it's not a cure. All right. It could be very helpful, but let's not go too far and be like, let's get rid of all medicine and just do CBD. And I think you don't want the same thing and be with mushroom.

Caspar Szulc:

Cause you might get pushback from the conventional medical community.

Skye Chilton :

Yeah. Totally agree. And similar with medicinal Mushrooms as well as, you know, it's like, people are just like, Oh yeah, I can do X, Y, and Z or whatever. And it's, you know, maybe, maybe not as we know if, you know just the herbal medicines is like, we don't have a lot of clinical evidence and no, no one is willing to spend the money in that field to really try and prove some of these things. But we do have, you know, traditional use and we do have the anecdotally what we can take away from, from certain things. But yeah, it's, I think I'm more so scared about maybe just the corporatizing of it and will it get, you know, overly patented or trademarked or, you know, there's cannabis strains that are patented.

Skye Chilton :

Is it gonna become more drug-like to where a lot of people won't be able to access these? I think certainly you need a caution when consuming some of these products, I think a microdose is totally fine. I mean, that's, you're not going to really notice anything. It'll be really subtle, but bigger doses. I mean, you definitely want to do that in a healthy setting. And if you're in the wrong state of mind during that, it can be bad.

Caspar Szulc:

Oh yeah. And you know, I'm glad you brought up that idea of patenting things. We recently had someone that, that reached out to us. We use Cat's Claw on one of our products for our brain and is for inflammation. But this person apparently had 32 patents on Cat's Claw, which is a natural substance and correlating it to anything to the brain. So basically saying we couldn't use it and say it was for any brain or anything.

Caspar Szulc:

It's like, it's a natural thing, man. It's, it's grown in nature. How can you pat that and say, you know, you can't do that, that stunts others' ability to utilize it for their own gain in a sense health wise. So it was really, it was, and I started reading and researching and reached out to an attorney who was a patent attorney. He's like, yeah, this is the new thing. People are just patterning things in nature. And it really is kind of bizarre when you think about, you know, you're going to start to see patterns of like certain air qualities or things like that. And that's where it's like, all right, that makes it really difficult for companies like yours and mine as well to do good things and keep innovating with nature to try and bring the best therapeutic results. Yeah, totally.

Skye Chilton :

It's and I'm sure they're probably not even involved in the category either.

Skye Chilton :

Probably just, you know, patent people that are creating patents nonstop and just, I don't know how it works if they just come up with ideas and then just branch it across multiple different implications. And there we go.

Caspar Szulc:

Yeah. And, and that's, that's the scary part about this medicine as a whole getting that industrialization of it and getting companies to start doing that. So I'm really hoping that doesn't go that way.

Skye Chilton :

Yeah. It's a tough balance because I think you need some of that buying to bring the legitimization of it to where you can get the government onboard to start to decriminalize and, you know, regulate it and things like that. Cause I mean, certainly in the cannabis industry right now that you've got a huge variance in the amount of THC in products, which to some level is scary, you know, especially if you have some tiny little cookie or candy or something like that, that has 50 milligrams in it where you don't, there's no way you should be taking that much.

Skye Chilton :

I don't know. Well maybe some people feel like that scares me. And so I think having, you know, there's going to need to be some corporate tie in there. It's not going to be completely grassroots anymore. And that's gonna just help to legitimize it in the eyes of whoever's regulating. Yeah. And I do think that the consumer still has the power, right? So if the consumer understands the importance of quality, what you're educating, what I try to always tell people that quality matters, they will demand that with their dollars to the corporations that really care about the dollars and still satisfy what you're going for, which is kind of the passion art and skill of it using quality products. So there is a balance and I do think the education and awareness will keep that balance and not sway it too far. Unfortunately I do think that's happening in the marijuana industry, but hopefully, you know, that that can switch and we can learn from that as we move forward.

Skye Chilton :

Yeah. It'll be certainly interesting to see how that shape shakes out and there's, I mean, there's so much capital in that space right now that, and that's kind of spilling over into psychedelics. So yeah. I don't know where it's going to go.

Caspar Szulc:

I don't think anyone does. Yeah, specially after 2020. I don't think anyone knows where anything's going to go in the world of everything out there. You know, I posed, I reached out to Instagram for some questions here, cause I wanted to hear what they had to say. So I'm going to just throw these out at you and you could just kind of give me whatever you, what are the best Mushrooms to cook with?

Skye Chilton :

Ooh, wow. Personally, I like, I mean shiitakes are amazing. There's pretty good. If you can get, get it like fresh chanterelles, love chanterelles, pine Mushrooms are pretty tasty.

Skye Chilton :

Let me see Hedgehogs. But I think, you know, my favorite to cook with or are Chantrelles.

Skye Chilton :

Okay. Best new atropic Mushrooms for brain function.

Skye Chilton :

Lion's mane. Yeah, for sure. There's definitely the most research there. It's got a couple of different clinical trials showing help with whether it's like depression and anxiety or improved cognitive scores. As well as like greater mushroom intake in general. There's a few interesting cohort studies at Japan, where they saw a lot of really good health markers from people that just consumed more Mushrooms.

Caspar Szulc:

Now what about immune system? Is there one that you think stands out? I know you said a combination could do very well, but is there one that stands out? I mean, for me, I usually think of chaga, but I'm not well versed in it. What about you? What do you think?

Skye Chilton :

Yeah, it's interesting. Yeah. For some reason I don't consume a lot of chaga other than with our blend product, but no, I'd lean more towards some like say like a reishi, which just has a really long history of use. It's probably the most research mushroom. Shiitake and Mitake know, have been around for a long time, been consumed for a long time. They've both kind of gone through their let's see like popular phases. My dad always makes jokes about, I guess, what is chaga is kind of dub the King of Mushrooms right now, even though it's not technically a mushroom, but you know, when he was first getting into it, it was, I think it was Shiitake was like the King of Mushrooms.

Caspar Szulc:

It changes.

Skye Chilton :

And then. he like saw Mitake, he'd come into play. And then it was like reishi and now people are gone chaga the King of Mushrooms.

Skye Chilton :

So yeah, it was like, you should talk to you when they are doing a lot of research on lentinan. And then they were getting into mitake, you know, it's these different fractions and my mitake that was getting a lot of publicity and play there. And, and certainly there's, you know, unique compounds and triterpenes and reishi too that have a lot of solid research around that. So, Oh, and the swell is like turkey tail. That's a big one in terms where there's been some good research on just helping with immunity and different conditions.

Caspar Szulc:

What about gut health? Any good Mushrooms there?

Skye Chilton :

Yeah. I mean, Chagas been kind of traditionally used for gut health. I think, you know, most of them will be pretty solid if, you know, for eating it, eating Mushrooms with fiber there, you know, that's going to be a good prebiotic and really helped to nourish it.

Skye Chilton :

The beta glucans, you know, those help your gut. Yeah, we usually talk about chaga a lot for gut health. It's kind of funny. And in China they actually have, you know, they don't use lion's mane in terms, they don't think about it in terms of cognition or brain health or anything. They actually think of it in terms of gut health, because there is a it's a cookie kind of biscuit thing that they make with lion's mane that is geared towards digestion and gut health. So that's what they know for like lion's men products.

Caspar Szulc:

Yeah.

Caspar Szulc:

It's your second brain, right. So many neurons in your gut. So that does make sense, which Mushrooms can be combined together to increase bioavailability?

Skye Chilton :

As long as they're extracted. That's fine.

Caspar Szulc:

Yeah.

Skye Chilton :

Nothing. Yeah. Not adding together. It's not going to really increase bioavailability.

Caspar Szulc:

Is it beneficial to take medicinal Mushrooms in a capsule or tablet form or would you suggest more of a tincture just powder?

Skye Chilton :

Either or no real preference there. It's like, yeah, we get that question a lot and it's, you know, whatever you can do to get it into your daily routine. If you're taking a lot of capsules already take capsules, you know, if you like making Bulletproof coffee or a smoothie or something like that every day added in there, whatever it is that you can get it into your daily routine.

Caspar Szulc:

Do you find biohackers are using this more and more Mushrooms?

Skye Chilton :

Yeah, definitely.

Caspar Szulc:

Because I know traditionally patients have used it for things, you know, problems, but now you're seeing optimization as well. I mean, that's, that's the name of game prevention and optimization biohackers are leading that way. I know they're talking about

Caspar Szulc:

Mushrooms. So do you find more and more of these kinds of optimization people are coming to you for solutions?

Skye Chilton :

Yeah, definitely. Some of the, some of the customers at Nammex are kind of in that space, like the nootropic space, for sure. And with, yeah, kind of biohackers looking into the tropics lion's mane always comes up there. It's interesting. Cause you know, like reishi, cordyceps, tremalle, mitake, you also have other studies showing like different neurological function. But lion's mane usually always gets kind of the publicity on that one.

Caspar Szulc:

Right

Caspar Szulc:

Now you touched on this before, but I'm just going to pose it again because it's about mental health and how effective is microdosing Mushrooms for mental health.

Skye Chilton :

I don't think I've seen enough research there to really know. No, I mean, yeah. It's I think, yeah, I don't know.

Caspar Szulc:

It's a tough one. Right? Because when you talk about mental health and the use of any natural substance, you kind of have to address what is the cause of the mental side, it is no different, you know, mental health and physical health, it's all health, right. And without understanding what the root causes underlying dysfunctions that are causing it, it's very hard to just reach into nature and say solve it. So that that's been my kind of take that. Absolutely. It may be able to address something they're clearing a blockage or some kind of system belief system that's triggering a mental dysfunction or maybe it's something that isn't at all correlated and that's creating the mental problem.

Skye Chilton :

Yeah, I guess it depends on what exactly the mental health condition is. If it's something like, I don't know, Alzheimer's or dementia or something like that, I don't really know. But certainly I think they're saying with at least with magic Mushrooms and psilocybin, that it can help to create new neural pathways. And certainly when you are you know, tripping out it's making new connections there to kind of show us different things and whether or not those have a lasting effect or not is hard to say as well as you know, with lion's mane in there to kind of helping with neuro helping to stimulate nerve growth

factor could help in certain cases. I mean, certainly one of the studies out of Japan showed improved cognitive scores, but they also found when they stopped taking them, this was elderly people after they stopped. A lot of the symptoms came back.

Caspar Szulc:

Interesting. Are there any books that people could read? I mentioned Mycelium Running that people kind of pointed me into, but are there any books you would recommend to learn more about Mushrooms?

Skye Chilton :

Yeah. So there's Christopher Hobbs. He's a clinical herbalist. His book called So Mushrooms is good. There's Martin Powell. He's been in the industry for a long time. He has medicinal Mushrooms, a clinical guide. There's also us really small book. That's maybe like \$5 from the Dr. Stengler. I want to say, I think it's called the Health benefits administrations. One really good one that I like. It's it's a book that's translated from Chinese. I think it's just called Lingzhi which is the Chinese name for reishi, but it's by Zhibin Lin who's one of the top ratio researchers out of China. The one I just got recently was another clinical guide by Robert Rogers, medicinal Mushrooms, similar to clinical guide.

Caspar Szulc:

Sounds like there's a lot of literature out there that, that people could definitely dive into.

Skye Chilton :

Yeah. I mean, sir. Yeah. There's, I'm kind of more on the research side of things when I'm looking for different papers and see, it's nice to get those summaries and then you can dig into the references and figure it all out. But I'm I mean Taro at Four Sigmatic has his book too, which is more of a, a really like simple version lots of recipes and it's really easy to read, not as scientific or what's called functional fungi or, but this is good.

Caspar Szulc:

Yeah. No, I think that's plenty. If you want to jump in right there and learn all about Mushrooms, now what's your daily health regimen look like? Cause I, I, I saw you studied Chinese three times a week, so are you taking any new tropics to learn that and how's that coming along by the way I heard Chinese is incredibly difficult to learn.

Skye Chilton :

Yeah. So yeah, it's been maybe four years now, three or four years of lessons now, but I figured getting into this business and visiting China, it was important to try and learn the language. And so it's been yeah, super difficult. There's a lot of sounds that, you know, if you have just spoken English your entire life, you've never, never made these sounds with your mouth before. And I know like you must know Polish, right?

Caspar Szulc:

Yes I do. Yes.

Skye Chilton :

Probably not nearly as hard, but definitely difficult in some ways there is no translation for certain words. Right.

Caspar Szulc:

That makes a little difficult, but I can imagine Chinese is 10 times harder.

Skye Chilton :

Yeah. There's just, those sounds that you don't make in English, right?

New Speaker:

Yeah.

Skye Chilton :

So yeah, I've got some family that's Polish and heard some words and was like, okay, I can try and make that sound. But yeah. So it was like initially I got these pretty cool little videos that show exactly where to put your mouth and how to make these different sounds. And then it's just the practice. But it's, you know, at, you know, four, three to four o'clock in the afternoon when you're having a, a lesson. And so my tutor is, is in China and it's very seven, 8:00 AM her time, you know, at the end of a Workday can be certainly tough. So I, I try and take a little break before my lesson just to kind of regroup and get a little bit of energy.

Skye Chilton :

Some days are definitely better than others, but I mean, it's, it's been fun. I think it's, it's just it's like a mental workout really. Like I, I just feel, yeah, it's something that yeah. Some days can be just awful, but when it clicks, it's just great. And then getting back to China and visiting there is, is always nice when you can speak a little bit more and people are, are very appreciative. When they have foreigners that can speak Chinese or at least, you know, like try to speak Chinese because most people don't. I think that goes for any country you're visiting. If you can pick up at least a few things and you know, at least a please, and thank you and, and a few different phrases, you know, there are super appreciative

Caspar Szulc:

It's gotta be because I mean, I've traveled everywhere and there is this kind of almost obnoxiousness that you should be speaking English in a foreign land because I can't understand you or say a single word. So after traveling to many countries, I realized just pick up those few words, but since you go there all the time, that's awesome. And I have to say that I know a doctor who said his morning routine, he stopped meditating and just picked up trying to learn Chinese. And it's been better for him as far as just, you know, getting that kind of mental workout for him.

Skye Chilton :

Yeah. And in terms of morning routine I'm usually up pretty early and it's yeah, coffee, first thing with, with some fats on that and some Mushrooms and I'll kind of just drink some coffee until 10 or 11 before I really have any food, but it's eggs and some greens and some fats of some sorts. And then I'll try and push any carbs to the afternoon.

Caspar Szulc:

So you don't abide by any singular diet, you're not a ketogenic or pescatarian or anything.

Skye Chilton :

No, not really. I feel like it's you know, limit sugars, limit processed foods everything in moderation. I mean, like right now I'm just kind of recovering from a friend's birthday on the weekend or, you know, had a couple extra drinks, had cake, had ice cream, had all that stuff and I'm paying for it. You know, like my skin's breaking out a little bit. I've had too much sugar and sleep wasn't as good. So, you know, I think we should be able to indulge every now and then. And I mean, it depends on the person, if you're somebody that really needs that strict regiment or else you'll just go off and everything falls apart. But I, I know I kind of stick to a 80 20 routine of, you know, you know, eat well most of the time exercise most of the time, you don't be lazy if you feel like being lazy, don't, don't be super strict or over critical on yourself.

Caspar Szulc:

That's awesome advice because I find too many people, even when they go into health regimens or diets or whatever it is, and don't make it a lifestyle, keep it so strict that they lose any joy out of it. And there's so much stress associated with it that it's actually detrimental so that you went vegan, but you're so stressed about what you eat. You're eating in a poor state, your, your, you know, the sympathetic nervous system is on, you can't even digest the great, you know, veggies you're eating and you hate life. And that's not what it's meant. Right. Any health regimen should be one of joy also.

Skye Chilton :

Yeah. I mean, certainly the more restrictive diets are, are pretty tough and I know people that have gone through them and there's, yeah, it's too hard. It's too hard. And you don't end up not enjoying food, which is kind of sad, you know, I enjoy cooking, so it's, I want to make good food. I'm, you know, I want to make sure it's healthy the majority of the time, like, I don't really know how to cook dessert or anything like that or big recipes So it's mostly just like making good stuff to eat and whether, I mean, for the most, it's kind of like good meats, green vegetables, and no it's like sweet potato or rice or or something like that in terms of like a carbohydrate. So, I mean, it's, it's pretty simple for the most part and yeah, it's just rotates around like good meats and vegetables.

Caspar Szulc:

So I got to go back to my question. Do you have a favorite mushroom?

Skye Chilton :

Yeah, I think it's whatever I have on hand. I'm ...

Caspar Szulc:

Very PC.

Skye Chilton :

But I'd say I probably take reishi and lion's man the most, and mostly.

Caspar Szulc:

It's the most utilitarian you'd say probably.

Skye Chilton :

Yeah. I'd say, you know, both of those are really solid. I mean, it's a, it's such a tough ones to like go out and recommend that I'm like, Oh, but I, I was taking Turkey tail last week and that one's really good too. But I think, you know, I think longterm, whatever, figure out which one is your favorite and I mean, it could be a variety you can cycle through different ones, but as if you can just stay consistent with that, I think that's the most important piece about that.

Caspar Szulc:

How many Mushrooms are you guys cultivating using Real Mushrooms for your products?

Skye Chilton :

I think about eight. Yeah, there's maybe like, Nammex, my father's company, I think they sell maybe 12 different ones. And certainly I think China cultivates maybe 20 to 30 different varieties in mass. They have like a lot more of the culinary ones that I wish we would get over here, like Meiji and you can find them at at somewhere like the Chinese markets.

Caspar Szulc:

Yeah. No, very cool for those that are into culinary things to be utilizing, you know, those Mushrooms that we don't see much. What's what's next for you guys? What are you like excited about in this field and what are you doing? That's exciting you?

Skye Chilton :

Yeah, so couple of different things we've got our, our vitamin D product, which we're pretty excited about. And, and so basically Mushrooms have a fungal sterile. All of them do called prodostreol.

Skye Chilton :

The more culinary Mushrooms to typically have higher amounts. And when our gastro is exposed to UV light it'll will actually convert into vitamin D to and so we have a high vitamin D to mushroom product. So we're pretty excited about that. We've got a cool new blend coming out in probably two months that we're really excited about that. My dad helped to formulate and you kind of wanted a, like a total care type product that you can just take every day and not worry about things. So, you know, we're excited about that one as well as the other thing that's been on the radar for over the last couple of years is Mushrooms also have let's see, it's an amino acid called Ergothioneine are you familiar with Ergothioneine?

Caspar Szulc:

I'm not.

Skye Chilton :

Yeah, so it's an amino acid that some people are claiming as, you know, the next vitamin and Mushrooms, fungi are one of the only organisms organisms that can produce this compound. And what they're seeing is that as we age, we don't produce it in the body, but as we age is actually like decreases in our bodies. And so this could have age related implications. And that was, there's a big cohort study out of Singapore. When did they publish that 2019? I think where they showed just general mushroom

consumption helped to decrease cognitive impact cognitive impairment and they thought it was related to Ergothioneine.

Skye Chilton :

So we're very interested in trying to optimize Ergothioneine. So we've done a lot of testing on it and we're working on a few different things around that. And so that's exciting and, you know, there's a ton of different areas. We're always looking at trying to quantify new compounds. So we've got some work going on in ratio right now, as well as lion's mane, cause there's unique compounds in lion's mane too. That's no like commercial labs are able to quantify at the moment and there's lots of debates over the kind of nootropic qualities of these compounds and different claims from different companies. So we're looking to kind of debunk and kind of open the curtains on some of this stuff. So yeah, getting to work with some cool researchers but it's always,

Skye Chilton :

Always something new for the most part.

Caspar Szulc:

Isn't that amazing that we're still finding all this new stuff about something that's been here for so long and we've used for like thousands of years and we're now learning more and more from it. You know, I always say we 80%, I think it is of all pharmaceuticals. Start off on finding some compounds in a natural substance that's found in nature. Plant-Based usually some sterols in it, whatever it is. And then we can look, we can reproduce that in a lab, but, but it all starts there and learning about this stuff and how much you could still find in Mushrooms and then apply to the body to enhance, to regulate too. It's crazy to me. It really is. So that's awesome that you're hinging these boundaries in the mushroom industry and still finding out this cool new stuff.

Skye Chilton :

I mean, it's, it's really exciting. It's really fun. You know, every day seems to be something new and you know, we've got an amazing team of people here and everyone is excited about Mushrooms and I'm excited that the industry is, is growing and consumers are really getting excited about Mushrooms too. And thinking of them as whether it's as a supplement or as food, I think it's just really important that this kind of mushroom phobia is starting to go away a little bit. I mean, you know, like, I don't know, does your parents talk about like foraging Mushrooms? Cause I know I'm like polling, that's pretty big.

Caspar Szulc:

They grew up in Warsaw in like, you know, the ghettos of Warsaw. So, so there was no forging, but when they were in college, they got to go to the south the Trata Mountains where I know they forge sometimes. And they did mention that they tried once in a while to do that and go out with the local, the, the touch with people there. And yeah, they said that was fun so, but I can't imagine growing up, you know, like that, that was your every day.

Caspar Szulc:

So, you know, to you, it seems like a passion in art form a skill and it's been kind of carried on from you're the next generation I do it. So I find that awesome.

Skye Chilton :

Yeah, I'm excited, but just, yeah, people are getting out there and trying to learn more about Mushrooms and you know, the foraging thing is great and it's more, so people are getting past the like, Oh yeah, don't pick that. It's going to kill you or something like that. You know? I mean, you still need to be careful, but I'm glad people are just open to it a lot more now and open to eating Mushrooms because it was just limited to the button mushroom for so long and the button Mushrooms, are so boring and tasteless and yeah. So there's more variety, right?

Caspar Szulc:

When you bring up that poisonous mushroom, I go back to that office episode with Michael Scott goes into the wilderness and Dwight has to say from eating the poisonous Mushrooms and it's just, yeah, people associate picking Mushrooms, unfortunately in the forest is you're going to get poisoned. So there definitely needs to be some more education. I think about that. And you're doing a great job at it.

Caspar Szulc:

Skye where can people learn more about you and Real Mushrooms?

Skye Chilton :

Yeah, sure. Just check out our website, real Mushrooms.com. We're pretty active on Instagram for the most part. At Real Mushrooms, if you search, I should find us we've got a Facebook group as well called the Real Mushrooms Insiders. I think we're up to six or 7,000 people now are all just interested in Mushrooms and, you know, send your questions our way. We're always helping happy to answer. But yeah, I think that's, you know, we got tons of good resource on our website to all kinds of different mushroom articles lots of stuff going into, you know, the nitty gritty of, of products and what to look for in compounds and testing and all this stuff that I like.

Caspar Szulc:

Yeah. And it sounds like great reasons for resources, for anyone to learn more about this. And that's what it's all about. Education is empowerment. Empowerment is getting your health back and keeping it. So Skye, thank you so much for being on the show. Really appreciate it.

Skye Chilton :

Awesome. Thanks Caspar.

Caspar Szulc:

Maybe we've gotten so away from nature that we can't see the amazing options such as Mushrooms. It provides us to help us heal and optimize our bodies, minds and souls. Skye's mission and the things he's uncovering about Mushrooms is pretty inspiring. And I connect with his level of craftsmanship in producing real mushroom products. As I've seen time after time, that quality determines results and nature holds the answers to many of our health problems. Check out real Mushrooms, add their products to your health regimen and even add some Mushrooms into your diet as well. Utilize what mother nature provides and what people like Skye have made it, their life mission to make it as easy as possible to take advantage of and continue to write your own healing story.