Introduction to Christopher Shade and Quicksilver Scientific

Welcome back to the Bioregulator and Peptide Summit. Folks. We have a very special guest here with us today. Christopher Shade PhD is a leading authority on mercury biochemistry, glutathione science and advanced nutrient delivery.

His passion for healing and intuitive understanding of chemistry and biology are reflected across two decades of innovation at Quicksilver Scientific, from detoxification protocols and patented nanoparticle delivery systems to the mercury speciation test and oral peptides, which is what we're going to talk about today.

Doctor Shade has bridged the gap between clinical research and real world efficacy. And aside from that, he's a totally cool guy. Welcome, Doctor Shade.

Thank you for taking the time to be here today. Oh, thanks. Nat, I'm always glad when we can get together and talk. Me too. It's. It's always a fun day.

Never easy to pin you down, but always worth the effort when I do. That for a long time. What's that? That's been said for a long time by a friend. Well, it's part of your charm, you know. Yeah.

It would. We would be no fun if we could just get you when we wanted you. We kind of have to know. It's the. It's the joy of the chase. Yeah. All right, well, listen, you've been like.

You know, Quicksilver has been this kind of amazing kind of institution around detoxification, cell membrane rebuilding. You have that three month incredible longevity protocol where you showed that after three months, most people were reversing their biological age by, what, like two and a half years or something on average.

We got a year off in three months on absolute. But you know, it was really the trajectory of that Dunedin pace. You know, the raging really came down.

Yeah, it's a beautiful thing. So you're slowing aging like that's that's the deal guys. And you know what's the ethos of the brand is about get rid of the stuff that's in the way, rebuild the machine and then energize the machine.

Like that's that's your ethos at the end of the day. And then so when you decided you were going to turn your talents towards the bio regulators and peptides, I was like, oh yeah, guys, here we go.

This is going to be a whole new little adventure for us in this space. And the cool thing is that it doesn't involve any needles. And so what I'd love to start with today was everything's in a liposome.

So if you could basically help the audience to understand, because a lot of people say that their products are liposomal. And my understanding is, yeah, you know, liposomes are sort of not that simple.

It's not just a speak it and it will be kind of situation. Oh yeah. And it's not just put lecithin in and you have a liposuction. And so what is a liposome.

You know we're making one of the ways you describe these particles is vehicles. And you're making this sphere out of fossil choline, the same thing that your cell membranes are made out of.

How Liposomes Deliver Peptides and Nutrients

And when you make them small enough and with good structural integrity, they can absorb right through the mucous membranes, right in your mouth, into the capillaries as you swallow.

They'll be basically anywhere it touches. It's going in passively diffusing through something called parallel transport squeezes between the cells and gets into circulation.

You know, it's sort of the biochemical syringe. And this has been a key. We got onto it when we were trying to do Mercury Detox. My first supplement was a mercury binder, Mercury specific binder for the GI.

That really changed the way Mercury detox is done and got you from forcing it to the kidneys to pulling through the liver, opening up that juncture, getting everything clear through the GI.

And but that was based on getting glutathione complexes of mercury down to the liver and so well, how about we put in some glutathione. And so that was really the first approach at liposomes is how do you get glutathione into the system.

Because the capsules the stomach peptidases are going to start breaking it apart like they do with all tides. And so I found these little ways to get in.

And there was a lot of products not a lot. It was in the lives on days like live On and a couple others that were related. These thick, pasty ones, a couple of these real milky ones were out there.

And Tim Gilford, Redis was out there. That was that was the only one that was that was pretty good. And I was trying around with those. And I was private labeling some, and it's just nothing was what I wanted it to be.

And so I really focused on how you do these things, right. And you have to get really high grades of fossil choline. So what you'll see on a lot of labels is less often or phospholipids or occasionally foster locally.

So let's it in we know is a food ingredient is a byproduct of pressing the press. All this will be a little cloudy. They'll put some water and shake it up.

And all the water soluble all come as a sludge down to the base. And a lot of these are phospholipids and but Ralston's only about 15% fossil choline.

And then you get triple Lester which is 30. And then you can purify there and bigger facilities up to 50, 70 and 90% really making a liposome where it's a fossil lipid bilayer, encapsulating a drop of water that's up around 70% pure and above, you know, maybe a little between 50 and 70.

It starts. And a lot of people now are just putting less than in a blender with vitamin C and water calling it a life zone. Yeah. And then you call it a liposome.

Like when we were doing some electron microscopy, we bought a whole bunch of things from the market of competitors and stuff. We couldn't even get electron micrographs of them.

They were just this hodgepodge of goop in there while we had all these perfect spheres. So to be alive, it actually has to be made from this really high quality extracted fossil colony.

We use the same source, if you remember, back to the days when people were using injectable lipstick bill in a sensible. These were pharmaceutical grade injectable fossil colons same facility that makes ours injectable grade.

And so you have to use these real high grades. And then the very structure of your vehicle is a therapeutic on its own. I mean that has so much effect on cell membrane renewal, liver renewal, brain renewal, that stuff was used on its own.

So now we make these fears to encapsulate a molecule that we want to get in that usually wouldn't have a path into the GI, or would get broken down in the GI.

And the first big product we have, and it's still our number one seller, is a tri peptide, meaning three amino acids put

together as a peptide. And that's a good thing.

And so we're not new to putting peptides in liposomes and making them bioavailable. We've been doing that since about 2012. So now we get to the peptides and we have different size ones.

And you know we'll talk all about those. But you know CFPB is about the smallest one that we use. That's three amino acids up to the biggest one we use is BPC 157 which is 15 amino acids.

And you know these are all in a small range. It's easy to get into a Lebowski. So like BPC is the same but like the sizes B12. We've been doing B12 with pharmacokinetic profiles of absorption since right after we started doing glutathione.

And so we've been doing these things for a long time. And this line we put out has been getting fantastic results. And people are reporting like, this is as good as injectable.

You might think a little bit more, but the way it comes in, it just works just fantastic. And we have a lot of studies going now in absorption assays or getting some of the telomere data back from that.

And that's looking great. So yeah, so liposome is a little way to get stuff into your body in a very direct way. So it gets and it gets it to the cell, which is really interesting on the BBC.

157 is it still going to like is it going to be absorbed in the gut as well because you're talking about like, you know, with most of your products, the instruction is holding in your mouth for, for a period of time to enhance that buccal membrane absorption, bypassing the digestion, the whole nine yards.

So before it hits the stomach acid and then the file and the microbes and give it a fighting chance before it's, you know, fighting against these other things.

Now we have two general classes of particles. Water soluble are the fossil lipid bilayer called the liposome that has a water drop in the middle, then fats and alcohol soluble.

And so it'll be like vitamin A, vitamin D, CBD, the alcohol soluble like steroid hormones like resveratrol are still being questioned. Those go in an animal motion where there's a droplet of oil in the middle.

Now, these by nature tougher little mofos, and they'll absorb here, they'll absorb there. But the light is we're a little bit more like, wow, more of a chance here before we swallow them.

Now, like with the B12, you know, we measured B12. Normally it goes to your stomach, gets intrinsic factor and in the GI gets absorbed. Well, you spread in your mouth. Hold it.

And then two minutes later you already have a significant amount in the blood. So that's showing you're getting this internal absorption with the steroid hormones.

Five minutes 15 minutes really high. Now this is important. All these different particles, all the pharmacokinetics that we've ever done, they all peak in the blood between 20 and 30 minutes.

It's a big deal compared to all the things we've been taking where you take all these different capsules and one's more Sibo. And that's getting in there.

And our and other ones like four hours, five hours, and you want them all to hit the same target, but they're all going in a different time doing detox.

You're trying to mobilize toxins, get in your liver and move them out so you can take your binder. But they're absorbing all over the place. Now, all these different compounds going after a single target are all getting in at the same time.

And the programs you're starting and you're trying to affect are all getting infected at the same time. And then most of it, you know, clears out of the system and you're not holding these levels of these things all day long that we call them nutrients.

But a lot of these are like micro toxins that are stimulating this or that. We want to stimulate it and go away. Yeah, yeah.

GHK-Cu, Copper Balance, and Matrix Repair

So you have more control over the delivery and the and and it moving out. So talk to us a little bit. You know GHQ copper is becoming. Yeah. Well I mean look there's a lot of noise in the peptide space right now.

But let's say the GHQ copper is becoming a bit of the darling in the, in the longevity and healthy aging space. And we know that GHQ levels are high when we're young.

They drop as we age, which may have something to do with the way that we don't repair as well. Our collagen elastin levels go down like so many different things, right?

So talk to us a little bit about your formulation of the GCC copper and how you've seen it best be used by people. Yeah. You know, some of these others where you're really signaling something like more of this growth phase.

Maybe you want to cycle those, you know, for on two weeks off, for six weeks on, two weeks off, you could cycle during the week. Copper is more like a nutrient.

I don't really see a need to cycle it unless you're taking massive amounts, and it's such a fundamental one. You know, in the one study they saw between 20 year old grad medical students and 60 year old doctors, I think it was about a 60% drop, 40 or 60% drop in levels over time.

So copper GCC, you make the peptide GCC and it gets into the blood and it gets copper and binds it and circulates all around. And it's a major signaling for repair in the extracellular matrix.

Now when that comes down to how do we use it. Well now it's on all these face screams because that is stimulating collagen elastin. It's used in burns and wounds where you have to get the extracellular matrix and the college and production the last in production to heal all that stuff.

But what is the extracellular matrix? It's the one regulatory organ that exists head to toe. It's the thing that touches every different cell. And all the regulation goes through the matrix.

And even guys like Bill Tiller at Stanford, you know, we're finding these hyper ordered ion channels through the matrix and saying, I think these are the Chinese medicine meridians. Yes.

And yeah. And that's where all the signaling on where nutrients are go. And it's also the pathways where the nutrients are going from blood through the matrix to the cell.

Waste is going cell, the matrix to blood. And so it's this intermediate in everything that happens in your body. So if you support the extracellular matrix you're supporting everything.

If you look to the German biomedical systems and those guys were the mass of the extracellular matrix, that whole system of medicine was built around the extracellular matrix.

They were the ones who demonstrated the puncture effect from acupuncture and how it propagates through the matrix and through the whole body with these little shifts in the fibers of the matrix.

And so when you're supporting matrix, you're doing so much. And then we haven't even gone into gene regulation and methylation. You genome and you know they're saying between 30 and 40% of your epigenome is copper

control.

So it's something you definitely want in there. You want to be flush with this stuff and you don't necessarily need to pulse it or anything. You just take a little bit every day.

We have people load up if they haven't had it. The only time you run into a problem with somebody, you severely copper excess. Yeah. Yeah. And you know and then you've talked to me before about Ayler.

Stanley's uses a tongue because of the college they use so much they have to use some pure GHQ so they don't get copper access. So I saw one woman, this this guy was telling me, oh, I take it I loved it, given my wife and had this in these symptoms.

And I'm looking at her and she's round and very estrogenic and very I'm like, that's a copper type. And so they got to get their copper zinc balance under control.

And just to put this out there like seemed like it was so hard to get rid of copper. It's just methylation of bile flow. And you know, I've had so many copper excess women working for me here.

They all of a certain type and you give them bitters and, you know, methylation supplements, everything gets back under control. So no kidding. So they just clear the excess copper. Yeah.

They weren't moving any bile. And now this is copper, you know. And then you decide what to reabsorb. But nothing was moving out of the system. Interesting.

That's really and I guess I mean doing that Cyril of plasma and test also to determine what the zinc copper balance is because sometimes it's zinc deficiency.

Yeah. You're showing up as you're getting much more sophisticated. You'll be looking at zinc and metallic, which is the bank for for zinc, copper and cereal plasma.

Which bank for zinc. How much is free copper, you know, and then iron and ferret and get in there. But ferret and I see more of a measure of infection.

When we were talking about Lyme no infections, my ferritin was up to 400. And as I treated all the infections, I, you know, everybody was telling me to blood lad.

I did it like once I stopped doing it and naturally went for 400 to 2 40 to 140 to covers 100, 120. And me now, you know, as a Viking, that's pretty good.

But yeah, I mean, some of the copper work, you can just figure it out by symptom and some. So for people who are listening, just will finish up with copper and move on to one of the other ones.

But for people who are listening, how much is too much, do you think, like how much can people probably take every day, like every day and not worry too much?

Mars is like two pumps, five milligrams of copper, but that's only a half a milligram of copper. Yeah. So that's so that's interesting. Will you ever make a GHQ without the copper, do you think?

And when the demand is there, it's hard to manage. You know, we have such a broad line now. It's hard to manage. Yeah. Another skew. Yeah. Yeah. And if there's not a demand for it, you're doing it as a public service.

And then you're being yelled at by manufacturing. Warehousing. You got all this stuff all over the place. So we tried to just add as the demand there.

You know, it was kind of a shocking kind of a drag. So, so much copper, BPC, CFPB, TB, just tons of that stuff.

And I'm like, wait till the Epitaph and Fabulous were on there.

And it was like crickets. You know, it's like the people like us all bought it and well let's talk about them then because yeah, let's talk about the epitaph.

Because really, I mean, if you ask me, that's the money right there that in the GCHQ, if I had, I mean CFPB, I'd be sad to lose. And obviously BBC and those guys are great.

Epitalon and Telomere Support for Longevity

But if I, if you asked me what the pillars were here in the line, I'd be going, yeah, it's copyright formula. And I think BPC, CFPB is the most important one for dealing with the kind of like repair mixed pathologies we're getting.

And the CFPB really because it blocks the propagation of inflammatory reactions like food allergies that are even though the BPC fixes the lining, then the next food comes in.

You inflamed that. Tear the lining up again. You need to stop that propagation. People with mold post line post Covid. These are runaway inflammatory reactions that aren't resolving, and CFPB is the best thing for resolving those.

So those are the comorbidities of being alive in this world. I think that one's important. But you take those things away. And you're right. Epithelial and copper are the pillars for longevity.

Yeah. So let's talk to people a bit about a Patel. And I mean, I got my hands on a bottle of Europe Italian. I think you handed it to me maybe at eudaimonia last November.

And I used it up and I was like, you know, it was interesting. Eye to see this. The way the sleep metric shift, it's very subtle. But next thing you know, all of a sudden you're deep, sleep is coming up.

Your your hrvoje is starting to look a little bit better. Like everything just gets a little bit better. Yeah. Great. And yeah, we're starting to do some of the data around the telomeres.

And so for the people listening epithelium was legendary as this pineal bio regulator and caverns and and Russia for a study that along with Simon or so it was there's slightly different names like epithelial min was a pineal extract epithelial on is the the most powerful of the peptides in their time Allen was the extract thime ulin is the pure peptide.

And he did this research on those and was finding this massive change in all cause mortality among elderly, changes in cardiovascular complications, lung complications and neurodegenerative complications.

And then they looked at the size of the telomeres, the end caps on the chromosomes. And these shrink. And the more pathology you're exposed to infections and toxins, the faster they shrink.

It's called telomere attrition. And there's an enzyme that's supposed to bring them back. And it just doesn't work very well. And so one of the Holy Grail is finding something to lighten that.

His data showed lengthening of the telomeres, along with all of these changes in the trajectory of these degenerative diseases. Yeah. And it was and that is, you know, the way he quantified it mostly was a decrease in mortality, right?

When he did his old people studies the people. And, you know, the first one was a 12 year study, and he was able to show at the end of 12 years. And what was amazing in those is he was using the epithelium, and they only got it a couple of times a year for 2 or 3 years.

Whites a year. Yeah. And yeah. Yeah. And then they followed him after. Yes. And only half the mortality. 12 years.

I know it was crazy. And then he did the old people study, which I mean, you know, the Russians are not the most diplomatic people on the planet, but whatever.

We love them anyway. He only followed them for six years, but the control group was, what, 88% of them had passed by the end of the six years. The people that got the epithelium in it was maybe 45%.

But then the people he gave the epithelium in and the Simon two was like 33% mortality, like one fold reduction in all cause mortality like that's insane.

Right. And I, I don't know if you give that webinar and I was kind of making fun of the doctors. I'm like, isn't that enough to say longevity for you?

I mean, who's not buying in right away? Yeah, yeah. Anybody in the room here? Exactly. And, you know, and I think that and it's funny because we still have a number of fairly prominent names.

One in particular I'm thinking of who will walk around saying it's a bunch of hogwash, not buying it, which is which is hilarious, right? Because on the one hand, they're working with all these peptides that don't have a whole lot of human evidence behind them.

We know they work like we know BPC. 157 CFPB they do their thing even though we don't have a lot of human trials at this point. We have enough clinical evidence from clinicians to know that when they're used properly in the right time, in the right context, they will produce results.

But on these bio regulators, there are studies upon studies, upon studies on people, on humans. And it is. But I think the problem is, Chris, that it's subtle, like there's no fireworks and fanfare, there's no balloons falling from the sky.

It's just this really under the hood renovation going on slow and steady wins the race. Little tweaks here and there that are making all the difference in the world.

Think trajectory over long period of time. Yeah, yeah. And I just I you know, and I remember a long time ago reading a paper on GKE and the researchers speculating at that time that they believed that delivering GHQ lipase as a liposome would actually produce the same, if not better, results than by subcutaneous injection.

And here comes Doctor Shade. Ask and you shall receive. Yeah. I mean, lips are beautiful and just, you know, the way they get in is different. And, you know, I saw this with my son, who's the type one diabetic that you think that injecting subcutaneously, you just have 100%, you know, delivery all the time, but then, you know, wait, that's not the blood sugar is not coming down. Another one.

And some just didn't seem to work. And I think sometimes they'll drop them in a fat pocket and they just get isolated in there and they don't spread out.

So I think there's a lot that goes into where you put it. We just think, get it under the skin. But I think there's there's more to it than that and how it circulates and you know, and how it hits you.

And there is something great about the I mean, it really the doctors are weighing in and a lot were, you know, dubious. And we're just like, I can't believe how well these things are working.

What are you what are the reports you're getting on the timeline? Because that's another one. It's again, like, we're not pushing the immune system up.

We're not like, we're not boosting the immune system here. And this is such an important nuance to unpack for people. So do you want to maybe talk about that a little.

Yeah it will. It's going to boost or clarify. Yeah. If it does what it's supposed to do, it's going to clarify the effect of

the immune system. So it's going to stop burning everything down and it's going to be more directed like there's a virus.

Let's kill that. Then we'll bring back the inflammation should be changing CD4, CD8 ratio. So the you're more effective at killing when you need to kill and calm when you don't need to kill.

But that shift is going to be slow. It's not like just immediately engaging your immune system. You start killing things. So though I did feel when I would go into it a little too hard, I would kind of like almost get a little feverish.

And I had a big infective load I was still knocking off.

BPC, KPV, and Immune Regulation

So there is something there, but this is the one, you know, it's a little newer out and not as many people using it. You know, we're getting tons of, you know, reports of BPC, KP, BBC, TV, like BBC, CBV taking like food allergies and chronic inflammation.

It's just it's just like a day, you know, like, oh my God, I just saw Minkoff at his and you know, she was complaining about something that I've dealt with.

I was like, do this next day she comes back, oh my God, I feel so much better. I'm like, this stuff's a winner. So that was the KP. And then with all the people with like old damaged shoulders and knees and PPC, TV people are like, God, all those pains going away, all these old things are healing was much, much more fanfare around it.

Whereas the timeline hasn't been as much, people aren't using it as much. I'm waiting to hear more in we'll get aging data, but that takes a little bit longer.

But you know, I'm hoping, you know, in the lime and chronic infection world that I'm hearing that the immune system is recovering more from this exact post line where it's immunosuppressive and are all the post-Covid viruses that are upregulated, you know, see that we're getting the immune system back on track, but we're just using it the way it was said to be used.

And yeah, I want to just before we run out of time, I want to also highlight that one of the, well, one of the many superpowers of the Quicksilver line is going after some of these underlying issues, pathogens that you have in your system.

And, you know, we I mean, I'm a huge fan of the peptides. You're a huge fan of the peptides, but I think that it bears repeating. And people are probably sick of me hearing me say this over and over again in every interview.

But if you're carrying a pathogen load, which most of us are, you will get quite apart from the peptides might not even do anything for you. If you have that crazy load and you bring the peptides on board because there's just too much going on.

But I think it's almost like the difference between speaking up in a room filled with screaming people versus speaking up in a room that's actually listening to you with a mic on, like you're going to get through to them.

But then, you know, when we're doing longevity, where people aren't just using peptides, you're using a lot of stem cells and exosomes and growth factors.

And I think under a high infective load, those can work against you. And you might growing them as much as you're growing yourself. And so clearing things out, you know, whether it's a toxin load or pathogen load.

And both are super important. I think the pathogen load is under addressed. Yeah. And unless you have acute infection, people are missing this massive load.

Like I said, you know, once I looked under my hood, you know, because some line people said, can you make labs crypto Lepsius. And so I made crypto leaps.

I made the max with the other stuff, and I started taking them and I started changing all this stuff. So I ran a panel and I was just lit up. I had, you know, one of the thickest loads that most people have seen around me was able to clear all that.

I lost like 20 pounds doing that and then I lost another 15. Just taking CBV, just taking the residual inflammation. Everybody's like and this is at the same time GOP one everybody's saying, man, you look great on those GP's.

I'm like, I did them for two weeks. And I was like, this is the weirdest shit ever. I stopped, yeah I'm a fan but I but to your but that wasn't how I lost.

Well exactly. I mean and I think to your point, the body's defense systems may be imperfect, but they are what they are. And if the bodies feel is got a bunch of stuff it doesn't know what to do with, it's going to find a place to put it.

And adipose tissue is probably the most it's favorite. Like it's the most effective place. It has to sequester toxins. Yeah. And you know, most of them are you know, a lot of it's sort of normal chemistry is their fat soluble toxins.

So they go down there. Yeah. And and also that they all sudden you lose all this weight. That's why. When's your piece came out we would sell companion products.

I was like, well you need bitters and binder. You know, you need some nutrition. And it was like, if you don't detox now and you release all this stuff, that's why people lose their hair and they would get sick.

How she motos and all these negative effects of people like, see what the GLP wants to do. And I'm like, that's once that's the release of the hell that you stuffed into the fat.

Yeah, yeah. So so so and the reason why I bring that up is again, I, I just want to encourage people to really think about the terrain that you're dealing with, guys, because the beauty of the peptides and the bio regulators is they can move the needle in ways that there's really very little else that can do it in that way.

That is so in harmony with your body systems that really just taps into your body's wisdom. But yeah, but your part is helping to reduce and remove that toxic load that's underneath it.

Yeah. That's throwing the signals all off. You know, they're all dysregulated. And then you gotta you gotta take the crap out, kill the invaders, and then and then the resignaling piece cake.

And it's like, oh, that feels good. Yeah. So what do you suggest people do? Like, would you recommend people do some testing or. I mean, I feel with the pit on in particular, anybody, almost anyone, I think in the absence of active cancer, which maybe there's some questions around that, but a lot of questions, because it's like all the data around cancer is really good because it is not like growth hormone promoters, you know, Somalian, you know, Hexham oil and all that stuff.

Pathogen Load, Detox, and Product Sourcing

That's a danger with just but I don't think if people on a million or whatsoever when you look at the data around them. Yeah, I mean definitely Kevin didn't believe the moon and on crosses over into immune.

It does. Yeah. Yep. And case cells. It's restoring immunocompetent. So there's no reason to believe it's going to drive cancer growth unless it's a cancer.

The telomere which I don't think exists now telomeres are up regulated in cancers. And that's the fear around that. But that upregulation of telomerase is something that the cancer maintains independently, whereas the rest of your telomeres are falling apart.

The building your immune system. So I don't worry about that. I mean, you could put it out there as a, as a thing, but it's also not something, you know, if you're going after chemotherapy you're going to do that.

Then you have to repair the whole system. Exactly. After the most people stay off all these things during the chemo and, and then do the repair after.

Yeah. Which I think is and there's definitely. Are you ever going to do a villain. It's would you put away up on the list? I would I think villain is it's one of the immune bio regulators.

It's one of the it's one of the few. I think there's only 4 or 5 of the bio regulators that Kevin Son named Gerard, protectors and villain is one of those.

And villain is along with epitope on where they he tested both of those on transgenic mice that were prone to develop her two tumors. They had the Her2 gene mutation and Violent Act.

Both of them worked to reduce the occurrence and the size of the tumors. But villain was actually more powerful than a pit. Alon. Yeah, but we're going to have to just share that news around a little more before would you make it otherwise?

Otherwise, it's going to be me and you and four other people using it. Exactly. And the people listening to this episode. But, you know, I mean, I think there's such an opportunity on the bio regulators just because of the way that they work.

It's just really beautiful things. I do want to expand that a little bit. And, you know, I'm waiting for the sort of next wave and we'll bring those in.

And the prices have been coming down. There's more suppliers now. We're starting to get us manufacturers. I was going to ask about your sourcing. How are you doing the using Chinese labs, which are, you know, 95% of what's out there.

And you just you just test, well, everything that comes in. This is the nice thing about, you know, the supplement world that people don't talk about this CGM environment compounding is not our, you know, our regulations.

We have to test everything coming in and we have to test everything going out. And so, you know, it'll come with a sea of a with some HPLC from somewhere.

But then we do up to three different kinds of tests on the peptides, because you can have a mis assembled string that's got maybe the same mass or the same retention time in an HBO sea column, but then you're putting it under some UV vis and it's different circle dichroism.

There's different ways to make sure the whole molecule is correct. And we've rejected some batches. Not too many. It's this supplier has been really good.

There was really one in particular back. And we're like, yeah I think you're right. Yeah. So and I think that's an important conversation to have because sourcing is a massive issue.

And I love that you just came out and said, look, we are getting stuff from China because there are good suppliers in China, just as there are bad suppliers.

James man, they got some great shit. They got a lot of junk. But yeah, but if you've got your if you're doing your own vetting and testing at the end of the day, that's, that's the, that's the secret sauce right there.

But do you think you will, you know, getting pure quotas up in now just write your psycho dragon all set for like high purity. The price is coming down.

And so some of these labs will make these things. And certainly for the peptides, you got to have sequencers going all the time. And you know, labor and overhead really adds up on those things.

And so it's a little cheaper there. And there's great chemists and you know they can make some good products. Amazing. Well and and you've taken on the burden of proof.

Right. You've taken on the burden of testing as it's coming in the door and then do you and then testing again as you're on when you're through your process.

Yeah. Yeah. And that's, you know, just to make sure your potency was right and everything added, everybody added everything right. You know, that's the nice thing about CMP.

And I met one of these guys run a R&D at one of these big telemedicine pharmacies connected with, you know, they'll in their own compounding stuff. And he's like, I got to tell you, this place makes me nervous, you know, not CMP because I'm much more comfortable with your environment.

So it was good hearing that. Nice. Love it. Well, Doctor Shade, we never run out of things to talk about. Thank you for being here. Thank you. I'll see you on your podcast next you will see me on my podcast.

And in the meantime, folks, we do have a code for you which is SHS Doctor Talks, which will get you 10% off. However, getting to these products, there's a process and all of the links and directions will be in the show notes.

So you'll need to go to the show notes. And basically you need to go and just create an account for yourself on our website. Then when you log in with your account, everything shows up.

There you go. Thank you, thank you Chris.