Introduction and Guest Background

Well hi, everybody, and welcome to the Peptide Summit. My name is Doctor Matt Cook and I'm with my good friend Doctor Suzanne Turner. And she is the founder of VML associates.

She's an incredible doctor. I've known and met her at conferences and, have found her to be one of the bright lights, in medicine. And so, because of that, we made a list of all the great doctors in the world that we wanted as a faculty.

And she was at the top of the list. So, she's, faculty for, the International Peptide Academy, and everybody loves her. And so we're, here to sit down and, glean some wisdom, and experience from her experience as a family medicine doctor that takes care of, everything from, very complex problems to, the topic of our, conversation today, enhancing the Azure entrepreneur.

So welcome. I'm delighted to have you. And thanks for spending some time with us. Thank you. Matt. Great to see you. Well, tell me about enhancing. Actually, tell me about peptides.

Tell me how you got into it, how you learned and and, just a little background experience, because I think you're a great resource for people, to learn from, on this topic.

Sure. So it was probably five years ago. I injured myself my own hip and had trouble getting back to. I was a runner, competitive runner, and had. Maybe it's longer than that now.

Anyway, had trouble getting back to activity, some sort of function, and was just looking for anything I could do. I'd gone through all kinds of different treatments and had really little success.

So I started looking into options that were available. I happened to attend the annual meeting that a forum does and went to a peptide conference, and they were talking about mechanical growth factor.

So I started using the kind of growth factor for the injury and was able to get back to activity, which was really great. That was a big turnaround for me.

And so then what is this magical stuff that's out there and what else is there that we can learn? You know, any time we have, we've all got patients that are sick and we know they're sick, but all the things that we typically use aren't working for them.

So we're always looking for what's the next thing we can, we can bring to our practice to help our patients get better. Especially some of the particularly sick ones that we have that just aren't responding to the typical things.

So sort of for my own benefit, but also for them, I started, going through the peptide certification course, and I did that through a forum, and then I got called to be on the faculty for them, which was awesome and, very exciting and fun and had a great time for several years doing that.

I'm still on faculty with a firm teaching in their peptide certification that's coming up. The part two is coming up the end of April. Yeah, we're I'm going to be there with you.

Oh, good. Excellent. That'll be fun. It'll be a good one. It looks like there's some really good talks in that one. Okay, good. Yeah, I'm looking forward to it.

So then, yeah, you would be kind of like me, the 50% interested in this for helping people and then 50% interested in this because we like to exercise and train and do stuff, and so then work or volunteer.

Need a little help as we go through aging? And getting older and trying to stay young. So then talk to me. Maybe

just tell me a little about how did you how did you use that peptide to treat your Hep and then how how do you like to to use that?

Maybe we just start start with that one. Sure. So this is the best thing about peptides is these are typically things that are, that are recognized by your body that your body already makes.

So the the way I use it to treat injuries is we'll do the MGF right here in the office. And just usually at the acute, especially for an acute injury, we'll just do it at the site of injury either into the muscle, into the tendon, at the side of injury.

And then we'll send them home with IGF one, LR three to do on a daily basis for 7 to 10 days after they injure themselves.

Peptides for Injury Recovery

Of course, we usually combine that. I probably will stack it with some, BP ctb before I like that combo. It's a nice easy because it's in one syringe so you can combine it.

Yeah. Me too. And then what, what did you experience when, when you did that. Quicker healing. Yes. So this was a high hamstring strain. And it's just such a terrible place because what you and I do a lot of times is spending the day.

We spend a lot of the time during the day either sitting or standing but not moving. And so, the, the, that's a really easy strain to happen. And I was a competitive runner and that's just what happens.

So I did have to give up running. It still bothers me if I, if I run, but I can do all kinds of other sport now with no trouble. Okay. That's a good one.

I've, I also when echoed that idea of, of it's if, if there's a problem that you have that you can't fix, it feels psychologically fairly overwhelming.

If there's a problem. The interesting thing is is that the peptides you can inject them right in that area and they kind of have a local effect and a systemic effect.

And so then, you know, I've, I've had so many little nagging things that bug me for years that, you know, I just grabbing an insulin syringe and injecting it in, and you're just injecting that subcutaneously.

But when the, well, you go subcutaneously over that area where you try to go into the belly of the muscle, absolutely into the belly of the muscle or the, tendon sheath, if we can get it there with ultrasound guidance.

Okay. Perfect. Yeah. So then that's that's super perfect. And then a lot of those hamstring tears on that area. I'll do a sciatic nerve dissection because the sciatic nerve is sort of right underneath those hamstrings. Yes.

Interesting. You can do the, cerebral lyson in that area just subcutaneously, and it makes a big difference. You know, that's an interesting one too, because as the as nerves go, and then they sort of arbery's up to the skin.

What happens is if you put something subcutaneously, I think it's almost like a delivery mechanism. Right. I get absorbed in those nerves and sort of track down.

And so even though I would be a relatively big proponent of treating doing things around nerves or close to nerves, like with ultrasound, I, I think that as we evolve in the next kind of year or two, we're going to have more and more examples, and I even find up myself where we do some continuously something and it gets absorbed.

And then that, that, that has a similar effect to a nerve headed dissection. Tell me about cerebral ice. And since you brought it up. Right. So, that's what I, I use it for, for local injections, especially for the sciatic nerve.

Just because it's so close to the surface of the skin there at the gluteal fold, it makes it really easy. I feel like it's really getting in there and I get good results.

History lesson. And we also use it for things like, trigger point injections in the cervical, thoracic, you know that for if patients are having a lot of, like a whiplash injury or, you know, tech neck that get that we get that pain in their upper back thoracic spine.

That's a great one to use for that. Of course I use it for I, we use it in much higher doses in IB for, cognitive impairment or for, for post-Covid difficulty with word finding for, for thought, thinking clearly, that sort of thing.

We use it a lot there and also for cognitive decline in general for age related cognitive decline. We use it there too. But the, for pain control, it's great.

And you can use really surprisingly big doses without really much side effect. And a lot of it you can do subcu. Now tell me. So then you brought up, I think that the thing that is kind of the defining problem that I think maybe what we face in our lives, which is this long Covid.

And you know, it's interesting we see we'll see a percentage of people with kind of brain fog difficult, you know, entrepreneurs that are just trying to make or are working, people that are overall okay, but struggling all the way to catastrophic, you know, can't get out of bed looks like complex slime and mold, but worse.

How do you how do you put how are you thinking about long Covid kind of how do you put how do you put that together? And then what what what are you finding that's helpful?

So this is a hard one for a lot of our patients. They're coming back post Covid and saying, you know, I was I kind of flew through it with slightly three days.

It was nothing. But now I feel like I can't find words. Now I feel like I can't participate in meetings without stumbling over what I'm thinking, without getting stopped.

And so I think there's a lot of things that are contributing to that, that are maybe Covid, maybe not. But I do think it's real and I'm seeing a lot of patients with that.

So, what we're doing to treat that is a lot of them, depending on what we find, we're doing some research looking in to see, like you said, are they coming back looking like a surface patient, like a mold or Lyme patient.

And so those patients we put on a whole protocol, that are and they're treated in a completely unique way based on that diagnosis with their, inflammation control and detoxifying and, and all the processes there.

But the, the ones in general, the ones who are coming just with cognitive impairment post-Covid, and these aren't people who would fail, a, cognitive assessment.

That's not the kind of person I'm talking about. It's it's like you or me, but they're aware that they're not able to participate in staff meetings like they used to be able to or to be able to quickly access information or to retain information.

So, for example, I have an executive who's learning how to play the guitar. And he used to be able to remember the, the, chords for a whole song. And now he has to keep looking back, keep looking back, keep looking back at the chords.

And so this is one of his, outlets for stress. And I don't want him to lose that because we need him doing the job that he's supposed to be doing. So, for him, we've put him on, this hexa, which I think is one of the best ones we've given him, some cerebral license by IB.

We also put him on ketamine nasal spray at bedtime, some RG three, and, I've got him on probably low dose

naltrexone. He's on a lot of things to try to get this back to him because we need to do it.

He's got to get better. We're also using, a cellular growth factors in him. So he's he's definitely noticing improvement to tell him what they reproduce.

So, the r isomer of ginseng, number three, it's a piece of ginseng that's been specifically found to be beneficial in, decreasing inflammation in the brain.

So, it's, commercially available through most compounding pharmacies. Yeah, I like that one, too. So then, you know, it's interesting.

Cerebrolysin and Cognitive Support

So my interpretation of that is basically kind of similar to what we do, which is a full court press with a variety of different modalities. You know, there's a lot of ketamine in there which will help with fight or flight and resetting sort of depression.

Anxiety turns off the NMDA receptor or peptides supplements and kind of a an overall total approach. You know, that's paired with, you know, and diagnosis case, something that's going to increase brain drive traffic factor.

Right. And we're using NAD Subcu and patients are getting great response with that subcu dosing. I think it really helps. And that gives them a little bit more control because a lot of them just because of Covid in general, because of the social aspect of Covid going, you know, being out of work, coming back to work, all the changes that are happening for everyone.

I think the, we've really depleted our NAD stores in general, both with the infection itself and then just life around around that. So especially the ones who respond well to ketamine, I'm concerned that they are, you know, one of the reasons that they're going down that, trip that that, pathway, the ideal pathway to try to get is to get more production of, of, of nad from the kind of Renick and Quinn clinic acid.

So, what they're telling me by their response is that they probably need some nad so we're giving them NAD in small doses. Most of them are two three weeks and don't feel like they need it any more.

After that. So we're just replacing their ability to repair especially, DNA repair post Covid they're just losing. They've lost other NAD so their, their certs don't work and their parts don't work and all that.

Okay. Tell us tell people what the certs and the purpose are. They are chemicals in the body, in every cell that are involved in helping with DNA repair.

So we are protecting their longevity genes and improving that instead of killing off the cell because it's gotten too much DNA damage, we're allowing them to, stay around and avoid apoptosis because they're able to repair their DNA.

So we're not, recycling all those cells that don't need to be lost that are that are recoverable. What sort of what sort of dosing when you do subcu and in terms of milligrams, are you giving people?

It's very individual. Most people I start out at 50mg like little, little teeny dose subcu because I want to see how they're going to respond. I've given up to 1200 Subcu.

Obviously they can't do it all at once because it's in a 200 per ML vial, but, they'll have to do it several times. Just we have to be careful because it can it can cause insomnia.

So they'll, they will if you take it too close to bed, they'll have insomnia. And, of course, sleep post whatever illness, stress stressor you have to be aware of, making sure that they're able to sleep it again.

It's kind of interesting for for me and with like, this pivotal sort of molecule that came to us also six years ago or something like we were like early with doing the those IVs, and we were doing it a lot for addiction.

But basically NAD is like currency in the body that facilitates these oxidation reduction reactions that are sort of high energy ones. So then I'm just saying this to bring people up to speed.

So then some sometimes that'll do detox like detoxing alcohol and stuff like that. But sometimes it turns on the Sirtuin Super families and kind of does DNA healing.

And it also sort of will turn your immune system on. And so then I love talking to people and hearing that they do exactly the same thing that I do, just because it's interesting.

We I've we've never had a conversation about nad but sometimes really sick patients with service are really bad more than Lyme if you give them nad I think it drives the detox pathway and if they're not prepared for that, then you can run into a little bit of trouble.

But for people who are healthy, the it can cause a little there's a little bit of a histamine sort of methylation issue that happens that can cause some flushing and nausea.

And so then the dose that, we like is 25 to 50mg. And then particularly for a starting and for people that are sensitive, I find that you do that dose and they have no side effects. Yes.

We often once you get used to it, we'll go up to like 100mg. But then I like those lower dosing and I like those lower dosing. And then, you know, there was this question we had over the years, what's going to happen if you put all of these people in and they give you up?

I think if you stuck on that. And then it was interesting because when we started getting on peptides, what happens? The combination of NRT and peptides is a super great combination, particularly like the mitochondrial peptides and sort of cognitive enhancing peptides, because I find that they work by different mechanisms.

And then once you balance that, just like you said, people are not so dependent on it. But sometimes it'll take a little while and then they'll you'll come into balance and then your it, it becomes one of many things that we can use to begin to modify basically our biology, but also sort of how we feel.

Yes. It's been, it's been a great tool to add to everything else we're doing. It seems like the in the back in the day when I was a family doctor, we used to give, you know, if someone was in counseling, we would give them an antidepressant just to get them to the point where they could actually participate in therapy and counseling.

And it's sort of that same way with NAD. You're giving this to them just so they can participate in all the other things we're doing so that their immune system is ripe and so that their, DNA is salvaged.

So, so that their, stem cells have gotten back to being quiet. Just so that everything is now able to function properly. So now the mitochondria can work, and now we can decrease our production of reactive oxygen species and everything begins to come back down again.

So then, I wasn't going to say this, but since you did, I. Now, I gotta say, it's kind of interesting. The person who was my mentor, who is this doctor?

Doctor? Mattie. Yeah. And in Louisiana, who's kind of like the OG person that I think is fundamentally. And thank you, Doctor Mattie, who's probably responsible for, 95% of all the people that got interested in energy, you know, in the world.

I mean, he has been profoundly and, you know, was I remember we were like the only people doing ad on the West Coast. And then now I talk to like addiction people in LA.

And then everybody is doing anything like that. And so it's it's shocking how helpful it's been. But he told me that and it was such a bold statement.

Long COVID and Brain Fog Treatment

He told me there's no psychiatric condition that doesn't respond well. He's a psychiatrist to NAD and that seems so crazy. And then I remember I had a, I had a patient that went through a horrible trauma that was in a fugue state, and then they they came in and I said I was like, they need to do a 5150 and go to the hospital because they're like, it's just kind of like what you said.

They can't even begin to participate in this conversation. And the families told me I would just give them an ad, and if it fails, then we'll take them to the hospital.

And I go, that's the craziest thing I've ever heard. And but I did it. And then we did 25mg of NAD, which is would be very low dose, tiny, the, somewhere between 25 and 50mg.

The person just looked at me and goes, hello doctor cook, I'm sorry. Awesome. And so then but and then I find that it's as we start to unwrap the biochemistry sort of pairing, pairing that with peptides is something that helps a lot on the mental, emotional, spiritual.

I think it helps a lot on the cognitive performer and for kind of healing the, the entrepreneur. And then I think it also helps with these really sick people.

And so then now the combination of small molecules, other molecules, peptides. And now we're just working on dosing as we kind of play in these different communities. Yes.

And I think we I consider the high performing athlete the high, high performing, cognitively performing, entrepreneur and the very sick patient to all be pulling from similar resources and to all be dealing with similar disease, cellular disease states.

And so we're we're I treat them very similarly. And then, of course, I have a few very elderly patients and I think they're dealing with I think that severe age 85 plus are really dealing with the same kind of cellular disease state, because we're challenging their cells at such a high rate.

We're dealing with that high oxidative state. We're dealing with the inability to repair. We're dealing all of those things that are that apply to all those different states, 100%, 100%.

So then take me down a road. Let's say, I bought in and I'm, I'm let's say that I am an executive with brain fog who had Covid and I, I need some help, and I'm struggling in meetings.

So then what, what what would be kind of, sort of what would how would you sort of put that together in terms of, like how Covid has actually affected us?

And then let's talk about designing a little program around that person. Sure. So if this was my patient, I would the first, of course, then we would get a long history.

There's usually something pre-COVID that was a participant, that that maybe was present. I have a patient right now who is, an executive. This is the same guitar player.

He, had a lot of trouble before Covid with some mood disorder that was fairly well controlled, but that had always been present. And then we get to treating we he had Covid had a pretty significant case of it.

Several weeks was ill and got over that no problem. But then really noticed that the cognitive decline occurred post post that. So there's been there's of course, we have to take into consideration all the factors that are going on.

He's also got things going on, internationally that are contributing to his business. So his stress level is greater. There are things happening personally that are contributing to, his stress level.

So he's not sleeping as well. So we have to you have to attack from all those different points, and making sure that he's doing all the things, you know, you don't I don't just start with peptides from the get go, but because this person was all in and ready to do whatever it took to get him back to functioning, that's where we started.

We started with giving him his. His chief complaint was brain fog and fatigue. So we started with nad as a, base, post-Covid. We started with NAD, and then we gave him, because of his brain.

I started him with the LDN. I wanted to do, we just put him on. I think I started with three milligrams straight. And that's also that's low dose naltrexone.

Yes. Then to get him, off of. And that was for sleep. I gave him a really small dose of progesterone to, five milligrams of oral progesterone at bedtime.

And so that combo really was a good way to get him to sleep. Progesterone has some really great brain calming benefits. And so, some especially for inflammation.

And that's where we started was with, was that LDN nad in the morning and, progesterone at bedtime and then and now I'm just going to unpack this a little bit as we go.

So then the low dose naltrexone sort of is, kind of an I, and it's like an agonist antagonist sort of that works on receptors in the brain that kind of can regulate, I would say, would you say autoimmunity to some extent, yes.

So here's what I, what I explained to patients. There's a tattletale in the cell called, nuclear factor kappa, be it whenever anything bad is happening, infection, illness, trauma, cellular stress, for whatever reason, that goes into the nucleus and tattle tails to the nucleus that something terrible is happening.

Oh, my gosh, the sky is falling, Henny Penny. And then the nucleus begins generating all the things, the signals to tell everybody else around it that it needs help.

So LDN, low dose naltrexone blocks that tattletale from entering the nucleus and causing that inflammatory cascade to begin. So we don't get a lot of the things happening to the cell.

It doesn't block it so strongly. Like, some of the, the autoimmune things we know for autoimmune to pharmaceutical, autoimmune things like Humera, it doesn't block as severely as that.

So it does still allow you to respond to an infection, for example, but it's going to keep that under wraps. So you're not going to have such an extreme response.

It'll be an appropriate response. Okay. Now can I unpack one thing about that please. But I think it's useful for people to hear. And then this is almost on the Lyman mold spectrum as well as long Covid.

And I've been explaining this to people. I said, if you had Covid like six months ago, are you actively making Covid virus in your body right now? No, no.

So then but you had this infection and it was a bad infection and it did all the stuff. But then let's say there's a long Covid patient. Are they still having a response to a virus that was there, but that's not actually living in them anymore?

We think. So. We think so. And so then interestingly, what happens is a lot of times, and I see this in complex illness that it may be that in more in Lyme the Lyme is potentially not active, but we're just reacting to peptides from that bacteria that are still there, a little bit like Covid.

We're still reacting to that spike protein. And so then the reaction is actually more detrimental than actually having that that peptide of the of the of the barrel.

Yeah. Bacteria there. And so then harming that that immune and and basically NF kappa B mediated reaction down then really makes people feel better because it calms down.

Basically this exaggerated response which is what's causing I would say maybe potentially a lot of the symptoms, which is one of the reasons why I like using di hexa in these patients, especially because is that, the angiotensin two receptor that gets triggered in these patients by this spike protein.

And, and frankly, in a lot of disease states, in high blood pressure, in high cholesterol, this is the this is what happens in diabetes. That that and that angiotensin two receptor gets triggered.

If instead we trigger that angiotensin four receptor, it does all of that anti-inflammatory triggering or cascade signaling. And so and it can overcome the angiotensin two signaling.

So this is the reason we like di hexa because of it binding to the angiotensin four receptor. It is an agonist at that receptor. So it really helps to create that anti-inflammatory and anti-inflammatory cascade the non inflammatory cascade.

And so things get calmed down. Your macrophages and monocytes that are that are in that phase that's that phase one get shut off. They phase shift back to that calm janitor type macrophage and and that.

So then that's super important. And then also access has this cognitive enhancing which yes everybody that has long Covid. Tell me about that. What's your perspective on how that how that works.

So we know that that Di Hexa can raise Bdnf in the brain by 10,000 times. It specifically works on oligodendrocyte that the oligodendrocytes are responsible for laying down myelin sheath in the, in the nerve cells myelin sheath is that sort of slick, cascade transmission pathway that the signals are transmitted back and forth to different cells or along one cell in order to send a message to the next cell and if those have any, any damage to them, which, of course, they do.

In the case of, of cognitive decline, we can reverse that. One of the things we know that dyslexia specifically good for is M. S., because that is the disease state in Ms.

is the decline or the lack of, myelin sheath, that slick sheath that helps signals transmit more efficiently. So then. As you, as you, there's this term that I felt like, you know people like us we're talking about immune dysregulation, the immune system being kind of stressed and overactive.

But it was also a really cellular dysregulation because the cells were really inflamed. And and then interestingly if you want to go down this road then it's the cells are inflamed kind of from a genetic level.

NAD, LDN, and Cellular Repair

Because basically the cell the there's an idea that the what if the outer the thing outside the cell is if there's a lot of stress, it hits the membrane of the cell.

And then basically it's that stress starts to work its way into the nucleus. And then the nucleus goes into an inflamed state so that the cell can respond back out.

Like that's a simplified way of thinking about it. But then that would kind of be a similar pattern to what we see in like, you know, sirs, and like the, the, the major immune problems, complex modeled complex line Lyme of our day and then Covid is going to be sort of, well, we'll take a percentage of people that may have those problems or other problems can be driven into a state like that.

And so now we're it kind of makes sense that we're using basically the natural molecules that exist within the body. Or we're using biochemistry basically to begin to reverse these things and then basically unwind and then basically reset biology basically on a functional sort of pathway.

Exactly I and I, it's one of the things I love about using peptides, because I'm not doing anything the body doesn't already know. I'm not giving you any sort of signal that's not familiar.

It's, it's I'm saying, hey, let's do this thing that your body's not doing really great right now, at least until you can get back to doing it on your own.

And that's been my experience. You know, patients, like you said, if if I'm giving you nad especially post-Covid, if I'm giving you NAD for that, I'm going to see over time you don't need it anymore.

You start saying, doc, do I need to take this anymore? Because I don't really feel any difference anymore and they get better. Yep. We take them off of it.

They don't need it anymore because they're making their own nad, which is what they're supposed to be doing. And that's exactly right. And then with, with all of these things, I would say philosophically we're probably going to be similar.

I've sort of, with a few exceptions of generally doing things and then rotating off and doing and rotating off and then in the rotation, then sort of feeling like, okay, how do I how do I feel, how things going and, and and then that kind of relates to your psychology of how you're feeling.

But then basically, for me, what I feel like as I end up with so much control over it that it makes me feel calm, it's like it's a psychology enhancer.

It's interesting to treat. I have a woman who owns a cosmetics line, and it's interesting to treat these people for a while with a combination of peptides.

You know, if you can afford it, you can have the the world of peptides. And and so treating her with this combination, she's finally figuring out what her body rhythms are and says, oh, I know that it's time for me to start my, test tomorrow.

And, oh, I know it's time for me to go back on my di hexa. Oh, I feel like I need to. She can tell when her body's got because she's been doing it now for a couple of years with me.

So the it's interesting to watch them also develop their own intelligence and intuition about it, because their body will tell them when they're done and when or when they need the next thing.

Well, and then that's why it's like, the it's like a good one. This is actually kind of a good one that I was telling somebody, you know, every doctor that does something well, do too much of their own thing, you know, and then and it's vicious.

And so then you realize esthetic people all do way too much that I congestions on themselves. And so you see them it's like, oh my God, you know, the, the hormone people do too many hormones on themselves.

And so that's it's a little interest. It's just interesting to and you see it when you walk around at the when we walk around at the anti-aging meetings.

But then the amazing thing about peptides, to really understand how to do it as a doctor, you have to live the lifestyle. Exactly. In doing that, then you initially and I say there's this period when you're doing it sort of a lot, and then you kind of come into this home like we're really in this fairly homeostatic balance of feeling it.

And then and then cycling on and off and sort of trying things, and it's kind of fairly nuanced and not too aggressive,

but like, it's I feel it's incredibly helpful, to, to do it and, and then like in terms of anything that I've ever done is sort of the most enjoyable because I'm actually talking to a lot of people.

And then I do like, now I do a lot of ten minute conversations. I just tell people, oh, I'll talk to you for like to people that I like, I you, I'll talk to you for ten minutes because then you kind of figure out and then we make an A, we talk for five minutes.

And so then we talk and figure out what to do and then and then and then now they have a great intervention that they do when I talk to them again. And so I don't know, it's, it's, it's, now then, you mentioned growth hormone secreted by Tessa morrell and, that one, how have how have long Covid patients responded to that?

And then how how do you put that together in terms of the architecture of a peptide plant? Hey, I've been a little anxious to use it in my long Covid patients.

I think it's I would rather see something that I can get rid of quickly if I need to. You know, it lasts 18 to 24 hours, something like that. And so I'd rather have something that worst case in here, because a lot of these patients with long Covid are, multi chemical sensitive.

So I hate to give them something that has such a long half life. So I usually will start with one of the shorter acting ones. If probably about 11 and I like it, but alone for commercial and yes, because they because a lot of these patients will have intestinal distress, they'll have some sort of they're, they're, they just have messed up microbiome and it does that doesn't work.

Constipation is a big report post illness. And so so the Pomeranian really helps with that because of improving intestinal motility as well as improving the cell's ability to function.

We know that one of the things that happens with these cells is they are no longer the affected cells that are affected by even stress. They are no longer able to maintain that, that hypoxic lumen that's necessary for the life of the good bugs that are supposed to be there that we like, like I mentioned, others.

And so those bugs really prefer to be in a, hypoxic state or environment. And we allow the growth because now the oxygen is not being used by the stressed out intestinal epithelial cells.

Now we allow the growth of other bacteria and the dyspnea to occur because the cells aren't functioning optimally. So not only does the Maryland improve motility just purely by its straight up action, but also it improves the ability of the cells, the intestinal epithelial cells, to go through beta oxidation.

So they're now using that oxygen and stealing it from the bugs in the lumen. So now we begin. It's almost like this I think of an engine that's just starting to go back.

And now we get it going again. And now the engine is working because the, in Tesla epithelial cells are using all that oxygen from the blood supply. So there's none to go to the lumen.

Now there's a hypoxic environment. All those, obligate, obligate Arabs die off and many of the facultative anaerobes die off. And now we have the bugs we want there instead of the original, dysbiosis that occurs because of the illness.

You know, that's another place where we use Romulan because, we're, we're used to raise a tide because the, infections, as well as the stress itself of whatever's happening will raise that.

So Zombieland is a chemical that disrupts the barriers between your epithelial cells. And so the epithelium, the lining on the inside, pretty pretty much from the nose, the tip of the nose down to the anus.

All of those cells have these, gates, sort of gates between them. Our daughter lives in a, new neighborhood, and they have their, you know, houses right side by side by side.

And the, they each have a little gate in between. So I use that example when I'm talking to patients about this, that, Zombieland is produced in response to B infection or inflammation that's going on, or even dysbiosis, itself and stress will cause that.

They will raise Zombieland, which then breaks down that date in between. And you can imagine if your gates are broken down, the things that can get in and out that aren't supposed to.

So, we'll use La Raised Tide as part of this treatment protocol, to try to restore that function. And so many things are affected by dysbiosis. Your bile acids, which are very involved in brain function, post illness, post stressor.

And so, so I see this as one of the factors that we put in the, in the line of treatment. But it tell us about La Raza Tide in terms of how it works. It, it, it blocks, blocks online.

So we know that the things like, in celiac disease that, that gluten will raise on as well, but stress will do it. Cortisol stress will do it. And infections or illness will do it.

Gut Health and Dysbiosis

I, I've been taking lorazepam and also for for the last six months. And how much do you take? It's, it's, it's, I think it's 200mg. How much are you taking? Five.

500? Yes. And so then, I'm taking it in, in combination with PPC orally, and then I and, and and I think it's kind of wonderful. It's, I think it's, it's a it's definitely a benefit.

But then if you think about, like, what doctor is just saying many of those long-covid people that we were talking about, the reason that they're long Covid is that they had some leaky gut and it was going on and they had probably Hasan.

And because of that and then because of and so then they had basically inflammation that was in their gut that was leaking out. And then part of that was maybe with their eating.

But then as you hear, part of that is the microbiome. What what bacteria are in that gut. And so then that's an interesting one that potentially a lot of what's going on is, is that we ended up allowing bacteria that like oxygen instead of the ones that don't like oxygen, because we tend to be more healthy in our gut if we have more of the bacteria that don't have any oxygen.

And, you know, I've actually bought into this to the extent that I really don't really recommend people do rectal ozone anymore, because I think that that is introducing oxygen and, and, and helping to grow, the oxygen loving bacteria and and so then that's just a little interesting data point.

But then figuring out how to fix people, the it's in our contract as functional medicine doctors that we have to dedicate 20% of every conversation to the gut. Yes you do.

I mean, I remember the network path saying that to me years ago, and, and I just poo pooed it. And they were right. The you poo pooed it. Yeah. Years ago. That's a Freudian poopoo.

Back when I was a young. Yeah. Back when I was a regular family doctor, I remember them saying it's all about the gut. And I thought they were crazy and they were not.

I have a, I have one of my best friends in the world is a, amazing doctor Shannon. Brian, shout out to Shannon, Brian. And she was she was, in town, visiting me.

This is a long time ago. And, she. So she needed CME. And so then, but, she said, hey, I'm going to be in town, and I vacation, and I had vacation. And so she said, hey, let's go to a rheumatol board review course because there was just like a border view course for us.

Yeah. And, and like, if you're like us, I would go to a part of your course of a different specialty every week, if I could, because there's just like, yeah, you get the deep down road.

And this was probably ten years ago. And so then we spent that week just going through rheumatology cases, and I knew that I was on we were on to something because we went there.

And then every single lecture was a lecture about the microbiome. But these are people with problems in their rest. But the but the inflammation in the gut was causing that risk.

And these are just straight up hardcore like, you know, UCSF professors giving the lectures. And so then I and then she kept looking at me and she was like, oh, the microbiome, the microbiome.

And you know, now that I think if that becomes, you know, what I tell people is the gut is something that we are going to project manage for the next ten years. Yes.

You know, just like a it's interesting. What are your top three things for gut health? If I, if I gave you that one. Oh okay. So the research on butyrate is outstanding, but I haven't found it to be that impressive in clinical practice, taken orally.

The only time I found it to be helpful is using it rectally, which is hard to convince a lot of people to do unless they're very symptomatic. How much of someone, how much you give them?

500, 500mg. How many compounder hates making it? Yeah. Did you hear that? I, I, I put it out on a thread somewhere about how we use the rectal ozone catheters to do that.

Oh, no. I have a good way to do that because I think, they compound it for us at pure. I think, and as a liquid. And so then what? They have these little catheters that are rectal ozone, catheters that are very small and very easy to slip into the rectum and thread up about 2 or 3in, and then you can take a syringe like a 20 or 30 cc syringe.

And then you can draw up, fill that up. And then the nice thing is it's ten, 20, 30 CCS. Then you screw that. On to what the rectal ozone catheter. And there's millions of places you can buy those online.

And there's some there are some that are very soft. And then there's some that are more firm. And the firm ones are kind of nice because you can just if you, if you push with your finger and then it'll slide in.

And the soft ones also are nice because they're softer both just see which one you like. And then interestingly when you and then it's very nice because it's very measured, because you can inject ten CCS now, then what you have to do is you have to squeeze your anus.

Then when you pull it out and hold it in. And then what I have people do is lie down. But for people with real inflamed sigmoid colonies and real inflamed, colonies in general, I have found that to be, a, you know, I like the probe, Gatorade, pills.

And then I've been taking 2 or 3 of those also, along with the La Raza tied, for the last, the last 6 or 8 months. Did you ever try? Try. Buterin. No. There's lots of great research.

Where is that? Where do you get that at? Who makes it? I get it. Who makes it? I think, I think designs for health makes it okay. Try bitcoin. There's a lot of research on it.

So then and what. Tell me about that as opposed to regular beauty. Right. So it's, it's an ester backbone with three beta eight, fatty acid chains attached to it.

Okay. As opposed to being sodium beta eight or calcium, magnesium Gatorade. It's a it's actually an ester backbone with three, orally. Yes. Okay. So butyrate number one for gut health.

Number two, I love a really good fiber. So probably mega pre by Microbiome Labs. That's probably my favorite right now. And then my third favorite is one of the many, IgG products that are out there.

So and tarragon is the branded product, the pharmaceutical grade product, the I forget we're not doing CME, so I can say names of things. The, mega, Microbiome Labs makes mega pre IgG 2000, Mega IgG 2000, new medica makes immuno PRP or something like that.

These are basically all the same thing that are made by the same people, that it's like an antibody that, that our bovine antibodies like removing serum.

Exactly. SBI protect is the other one. And so then the, the imagine if you made an antibody to Covid, these are antibodies and they bind onto gram negative rods and inflammation and toxicity in the gut.

And they really down regulate the amount of inflammation that those cells are seeing. And and so then, just allows them to recover. And so then what I do is, this is a hot tip.

Somebody gave me a coffee cup, but then I, I, we put, Laird Hamilton's coconut creamer, and then we put a couple scoops of the immunoglobulin powder and, and then, and then we'll put a little bit of brain octane oil and also and then we will end that up.

And it kind of tastes like a smoothie. It's like an amazing coffee. But then every day I take the immunoglobulins. And I found that to be a, a super amazing, and that's great.

And then, and then I do it. And then I would not do it if I didn't do it, but because part of my thing and then I do that every day. So it's kind of amazing, right?

I'm, I'm a fan of that. I would say the rise of Tides, my next one. But it's it's a unique, it's a unique patient. It's not going to be an everyday patient that's going to need that.

The do you find BPC 157 either systemically or orally is very helpful for gut health. Yes. I, I primarily use it for trauma. For injury. I just haven't had as much need.

I use it in my serves patients for inflammation in general. They, it's it's one of the few they can actually tolerate. So often we'll do BPC. So then if you hear it's kind of interesting because basically I would somewhat agree with you.

It's kind of like the everybody would love to talk about BPC for oral me and I would like it. And I'm currently, you know, taking a product that has BPC and, and the, the Raza Tide and, but then I'll cycle on and off of those things and also systemically I think it will have some benefits.

And then interestingly, I did a BPC through an insulin pump. Then when I did that, I was like, and it's kind of interesting because these peptides sort of a short half life.

I did it for like a weekend and I was like my, my gut has never felt this good in my entire life. So just thought, right. And so it's interesting that it definitely has an effect.

But but I, I do think that in terms of fixing this bias and leakage out and inflammation, those other things are potentially more important. And that illustrates the importance of a diversity of strategies.

It's it's never just peptides. It's silica. It's kind of interesting. Right. And they've got to meditate. They've got to do all the things you know they've got to sleep at night.

So whatever the things are that are going to be helpful, you know these are helpful in in the interim if they're if they're not able to for whatever reason, they're not able to, you know, they got young kids and they have an elderly mom and they got to take care of both of them so they can't get out of their stressful situation.

This is a good aid, but it's not going to fix the problem if the stressor persists. It's a stressor still there. So like you or me, with jobs that we have, running companies and, running around the country teaching and all the things that we're doing, you know, those things are going to go on.

So we need to those are sort of ongoing treatments. What do you use as a marker for when you're going to stop or rotate off your BPC? For me, I would just be like, that would be a good one.

Growth Hormone Secretagogues and Body Composition

That would just be like a feel of how I feel. And then basically like my gut feels so perfect that like, I haven't taken that product in like a week because it just spells perfect.

And then I was sitting there going, God, I can't even believe how good it is. And so then I, then I, I will stop doing anything and then and then and then what I'm doing is then I'll have that little conversation on that topic, go feel some love.

Still feels perfect, still feels perfect. And so then then if that problem sort of goes away, then it's almost like I'll cycle off of a little bit and and then, if you said, you know, we have a, joke around home with Barb of like, we're looking for a BPC miracle because you know, if she cuts herself or burns herself in the kitchen or something like that, we're always.

It's so helpful for burns and cats. Oh my gosh. You know, and a little muscle injury is. And so then I've sort of mostly evolved into, like what you said, my little emergency pain thing that I have and then, that, that I'm cycling on and off of.

Yes, I, it's in my regimen. So I do powerlifting as a sport and so I use it after I use it post-workout. Definitely. How much. Probably 20 units of, how much is it?

A 2000 mikes per ML. Okay. So, like, it's, so then 50 units of that dose, would be 1000mg, and so then half of that would be 500. So like 400 micrograms. Yes.

And so then that would be a good one. I'll always use 400 to like a thousand micrograms. But then we'll use high dose often for major problems. And so whether in, in concussion concussion or major or if I'm doing nerve hydro dissection in an area that's super inflamed.

So then this is a great little idea. And thinking about dosing if I'm dosing for subcutaneous dosing for a systemic effect, I'm looking for a nice little bump and then raise an effect.

And, and having some systemic local effect. But I'm thinking of a low dose. But then if there's an area that's really inflamed and you go into that area, what I find is you can go to very high dosing.

Yeah. And then if there's a nerve that's really profoundly inflamed and I do a nerve dissection, I'll use high dose thing. And so then that and then framing that and then thinking about that and kind of building our clinical experience of what people can take in what area it has been kind of probably the thing that I'm most interested in.

How about inter articular have you done anything with that yet? Yeah. And so then I, I would be, a fan of that. And then that one is another one where blood supply is also not potentially that great.

And so then you can go to quite high doses in particular. And so then I would be a big fan of two grams. Yeah. Or more. Like two to 2 to 5 to potentially even more milligrams.

And then the I think that it tends to, you know, the classic idea for joints, it has been to do was traditionally, thymus and beta four and BPC together.

And then, you know, I initially was hearing about and then doing a lot of thymus and beta four and a 2 to 1 ratio.

And then, you know, the other thing that you can do with the fragments of thymus and beta for that, I think are, you know, potentially, first of all, they're much more potent because they're they're just a smaller active fragments.

And, and then I find they work way better than thymus in beta form. And that is partially because of dosage, but partially because they're small. And so there's less of an immunologic reaction to them.

And then I'll combine those with, with BPC. And I would be a huge fan, a b they seem to b I think that with joints we're going to have a conversation.

It's kind of like you got. So then what if you'd like a five years from now? What I think a lot of people are going to be doing is cycling through hyaluronic acid, cycling through other combinations, cycling through peptides, cycling through PRP or PRP, plus other things.

And so then now or or growth factors, or plus L a matrix. And so then with that in mind, then you begin to realize, oh, that's a fairly robust approach to taking care of joints and, and and realistically.

I think that that's the most important thing that you can do for anti-aging. Because if your joints are good and you can, you can you can achieve that.

Powerlifting biomechanics, you have to have good mocap biomechanics to be a power lifter. If you. Yes, if you don't, then you can't do it. That also sounded so badass when you said I did powerlifting as a sports, I, I also I do powerlifting also for comedy.

I have a really good trainer and I do powerlifting for your comic amusement. But I would like to take a lesson from you so that I can say I do powerlifting as a sport.

It's a lot of fun. We also, we haven't started using it, but that that article came out about using, did you hear did you find it? Did you see it about using liraglutide into particularly.

Oh, yeah. Tell me explain what what liraglutide does. So it's a, GLP one agonist. GLP one is a, protein that's found a peptide that's normally found in your body that helps your cells to choose to burn fat as a substrate instead of burning sugar.

It has lots and lots of other benefits in addition to that. So that's a very simple, simple, simple way to think about it. But you could imagine if your, conder sites were better able to function much like your intestinal epithelial cells.

We talked about it a minute ago that theoretically, it would be a really helpful thing if your sites were able to work by beta oxidation, burning fat instead of burning sugar.

So they were working more efficiently and producing fewer reactive oxygen species or inflammatory chemicals inside the joint? Yeah, I wouldn't have predicted that one.

Although, you know, the the GLP sort of category is an amazing category because pretty helpful for weight loss. Pretty helpful for controlling, you know, blood sugar.

Which is probably the it's I was talking to, John Francois and he says, you know, basically all you need to do, he's got it kind of some things down. And he says, all you need to do is control and inflammation and blood sugar.

He's right. Are you using, are you using, those. And then what's been your experience on that in terms of, your practice? Yes, we use it a lot. I had a I you know, the weight loss stories are amazing.

100 pounds, 200 pounds. Really? Especially when patients are also doing it. It's just like Di Hexa. It's just like the others. If you are also doing the things that you need to do to take care of yourselves, then they're super effective.

So exercising diet alone, you might lose whatever you're going to lose. But you add to exercise and diet that GLP

one. And now the weight loss is amazing and you're able to maintain that weight loss.

We're using it in patients with ApoE e4 gene mutations, which is a predisposition to dementia. You know, this category of peptide was originally studied in patients with Parkinson's and other neurodegeneration like dementia, Alzheimer's disease.

And so, I'm using it in those patients, at a super low dose, I have them just use 25 micrograms little teeny dose, milligram. Sorry. Little. Yes. No, it is micrograms of of liraglutide or something. Yes.

Sorry, I'm getting mixed up. I use semaglutide so much now I forget the dosing for liraglutide. So let me say you're primarily using semaglutide almost exclusively.

It's just so easy at once a week. Okay? And the research is impressive that it's, more effective than the lyrical titers. Yeah. How much nausea and other stuff do you see with that?

Almost 100% if you get too high of a dose. Right. And so then that's so then that's the thing to manage. But, you know, I would agree. And then that is if you can, if you can we and maybe we buried the lead, you know, I mean, I should this is the, the weight loss.

It's because if you fix that, then that's like, then you can, that would be potentially drive a lot of longevity. So many things. So many things. It lowers cholesterol.

I mean, there's research to back that up. But I have patients who've lost who've dropped their cholesterol. Amazingly. Now again, you have to be careful.

You don't want to go too low on on patient's cholesterol and especially the ones who are taking the liraglutide plus testosterone, you might see their, their, cholesterol drop really low and then you run into problems with depleting plasma.

And we don't, you know, that's a that's another story for another day. But, it's a you you'd I titrate that dose to that effect. And then I have, started from the very beginning.

Tell me what your goal weight is. If your goal weight is whatever 150, then we're going to get you to 150 and we're going to drop your dose back down.

So you don't have to feel nauseated for it to be effective for weight loss. A lot of people will lose weight, even if even without the nausea, it should cause weight loss. Even without the nausea.

One of the side effects that I think is, is less common, but is is something to for people to know about is the possibility of, insomnia. So just be aware of that in your patients.

It does bind to, it's the cart receptor. It's, cocaine, amphetamine. Something I can't remember the all of it, but it's there's a receptor in the brain for that.

Anyway, it binds to that same receptor and can cause you to have insomnia. Just wakefulness. Can't sleep at night because of the lyrical or semaglutide.

So be aware of that. It's a less common with the semaglutide then with the lyrically time, and it typically wears off after 2 or 3 weeks of therapy. So just be aware that's the case and you may need to augment their other care in the beginning, if sleep is a real problem, it's not always my first go to okay, that's a good one.

And then also the nausea sort of wears off once you kind of get used to it too. You got it. Yeah. And a lot of people will eat less too. A lot of people tell me. Yes.

And the nice thing about it being competitive is you can go really low doses, 100%. And then that would be like a,

theme that we could talk about for forever.

GLP-1s, Weight Loss, and Metabolic Health

And then also I actually would echo that, the low dose thing and then kind of finding your way up is such a, a better way to practice this type of stuff.

I think I agree that a one size fits all. It's fun to, you know, you also have to realize that being sick for a patient, especially someone who's a high achiever, being sick is, is, a loss of control.

And so if you give them control over the thing, for example, I get control over what the doses that I take, how much I feel, what where I'm going. Then I it's one less thing.

I feel like is out of control. And now I've restored the control over my body. So my cortisol goes down. That's how I feel too. So then speaking, speaking of that, then the one other thing, and then this is going to be one thing that actually helps with sleep, where let's maybe just chat a little bit about the kind of the growth hormone secreted guys.

And you know, we talked a little bit about that. But you know, I will find that I don't know if you found that, you know, the, CJC and intramural and if people take that at night sometimes can be fairly helpful for sleep.

Super helpful. And then that also, you know, people will for for people who are on the healthy side, will you have and then and so then there's going to be a handful of different ones.

So then there's sometimes people can just take the ephemeral and sometimes people can take CJC and morale. And we talked about Tessa morale and how do you put that together over the arc of a year?

Do you have people cycle on and off, or do you have people generally stay on it all year and then and then, and then there would be some people, power lifters like myself, who will do it, who might do it more than once a day or, or would be more in the just once a day, maybe I've met.

That might be enough for you, right? So I'm using the, CJC app in Maryland. It depends on what our what goals we're trying to achieve. So is it am I trying to, to raise your, to increase your fat burning that I'm probably going to do it fasting and I'm going to do it.

Well, obviously I'm do fasting. I'm thinking of test around. Then I'm going to do it up to four times a day. So if I can find a fasting window four times a day, then I'm going to, I'm going to have them take it that often and they'll get that because they're increasing their fat burning.

Now, you're probably going to see that they get increase in muscle growth. So it's just a body composition shift. You might not see pounds on the scale change.

So this is where we always use a big by impedance analysis to measure where they are. Or we can you, could you do a next fit the, Dexa machine to get where they are?

Or you can use, what is the other, a dunk tank, of course, a water dunk tank. You could do that, which is a the gold standard for that. But the goal is to realize you're probably not going to change your pounds a lot.

But what we should see is that, increase in definition, increase in muscle mass, decrease in fat mass. I think my patients feel better on Tessa, Marilyn.

And I know that because most of them refuse to come off of it. But I tell them ahead of time, look, I'm gonna put you on it for three months. You got to come off of it.

Give it a month. We'll put you on CJC in the interim, CDC and EPA in the interim, and then we'll go back to it for a

couple of months. They, they fight every time, but I think it's a good a good practice to hold.

And then I usually will follow their IGF one. Just to be sure it's not going to high. And most of them, it doesn't even on Tessa Maryland, which is supposed to raise IGF one higher.

It doesn't I don't usually see that. I usually see them staying right under 200 right where they should be. Right. So so interesting stat. And so if in the past I remember and you could tell all of those people I had, I remember getting those patients that were on too much growth hormone.

You can tell you tell exactly what they look like. You know, they looked like they all had that same look of like pro athletes. You know, that back in the day where, you know, when when that was in vogue.

But I think you know this as a, as a concept is so much better. And I find levels are more balanced. People feel better. And then if you're only going to do it once a day and you can't sleep, then we have them take it at night, you know, fasting.

If you're sleeping great, you may take it in the morning. I also feel like the, the, Tessa morale is really, a miraculously wonderful sort of feel good.

And so then now you think about dosing, though, because they'll end up with some of those growth hormone symptoms that, swelling in their hands. Oh, have you seen them?

Yeah. And, you know, the nice thing is you this is just you just titrate it. That's the best part about it is I tell people, just like we talked about everything else.

If you're finding that you're having that symptom. So let them know what their side effect might be. And then you just titrate it down. If that's what you're experiencing, you're getting the benefit.

You don't have to push yourself to the swelling to to get the benefit. That's right. Yeah. And then that one is usually six days on, one day off. And then often that comes compounded with, morale.

And yes. So you get you get that benefit. So then now you begin to see having to do it separately. And I'll do the ever twice a day and the Tessa once a day.

Okay. Do you ever have them do Tessa. Once a day and up at night. No, I haven't found any way that needs that. Okay. And the episode? Inexpensive. That's true. So then that's a good one.

So then, We usually we'll do the CJC, but then I just have an algorithm of doing that. And so then you see the diversity of this. And then that's my favorite part about this podcast is and then I just to talk to people like you.

And then in the, in the diversity of how we're doing this ourselves and how, it's, it's plays out in our patients lives is miraculously interesting and then has so much fun.

We talked about, many things, you know, from an anti-aging perspective. We were the one thing we were going to mention was the, GSK, the copper peptide.

How do you think about that? I mean, a lot of people use it esthetically, but from from an overall wellness perspective, what's your what are your ideas about that one?

So, Doctor Picard back in the 70s was the one who figured out if you add GPC, which is naturally produced by your body, if you add extra GKE to a, to a cell, it produces a more youthful cadre of proteins than it would otherwise produce.

You know, you have your DNA is there, and it's available for production. There are more youthful, proteins that it can produce or more aged proteins it can produce.

The more youthful ones get wrapped up on the histones as we age and aren't as accessible or used as often. And the aging proteins are more accessible as we age.

And so it appears as though the GCC actually, increases production or the, the, the transcription of those more youthful proteins. So we do that just for anti-aging purposes on a twice a year basis.

We do the same thing for, you know, a, a pedal on, and through releasing on a cycle a couple of months, maybe a month long, twice a year. And so these are our our anti-aging protocol, therapies.

The science with the pedal on is really very interesting. Especially if you have Google Translate. Right? Exactly. Yeah. I remember reading Russian literature.

The exact. What sort of dosing will you do on a yearly cycle with k, one milligram daily for about 40 days. I like the idea of a 40 day. Okay. Yeah. So then interestingly, I, I think of GPS k as and I had this whole conversation with John Francois about this the other day about K, k is kind of like a bio regulator.

Yes. And these, these small three amino acid peptides then would be bio regulator ESC. So CP v is not a known by a regulator but would be kind of bio regulator ESC that says yes message.

And so then the, the this one I've never talked to you about this, but then I, this would be an interesting thing to kind of think about, which is, is that the, the research was really fantastic with Apatow on and this high dose range.

And so then we've been doing some you can almost based on that kind of microdosing. Yes. Microdosing bio regulators in general, microdosing Apatow or Epstein.

And then in parallel to that. Okay. And then thematically, those are basically affecting what, what genes you print. So yeah, the transcriptome and and so then as a result of that, we find that whole category fairly helpful for neurological conditions and Sirs and immune problems.

But then we're all somewhere on that spectrum. Yes. And so then, you know, thinking about the diversity of doing and, and then also all of these sick people, they react to everything, but they don't react to these small peptides.

And so then I think the direction directionally in the next five years, I think that's the future. And, and then figuring out, okay, you know, if you think of high dose Apatow on being like ten milligrams a day for ten days, twice a year, and low dose being like a milligram a day for a month, and so then doing that milligram a day for a month or the ten milligrams, and then doing that for 2 or 3 months or every other month, and then combining that, then with other small as, as kind of a design element, and then and then for me, it's a design element to me that's like actually my foundation.

And then thinking and then the then the next thing would be like the growth hormone.

Bio-Regulators and Advanced Anti-Aging Strategies

Okay. How are we going to manage that and think about that. And, and then basically all of these other things are basically symptom managing kind of biochemical directionally influencing what's kind of yes.

Right. So your baseline is the a pedal on and the GPC and the growth hormone secreted cogs and then everything else you add on based on what's happening with the patient, what they specifically need.

Agreed. Yeah. And then I would include some of the other bio regulators too. And like for example the immune people would respond well to like villain and and and villain and then Penn Yellen.

Very much so. And and so the tax arrest have used tax arrest in your in your Covid patients. I have not I have not not about that. It's amazing. It's the, pulmonary by a regulator.

So I just haven't had it. And so we're and so we're going to talk about that how we get to how do you do that. It's the it's the oral one. So it's just two caps daily.

I in the, Covid folks, I'm, I'm doing twice a day, two caps twice a day while they're sick. Oh. In a cheaper acute covet. Yeah. Okay. So then that's going to be a hot tip.

And so then that would be a amazing idea. And that would be a very, very, very good idea. And and the what is it. Is it basically, that's the, the vascular that's Vestager.

Vestager. Yeah. Yeah. And so then I would have everybody on that. I just haven't had that. I haven't had access to the tax arrest. So then we'll sort that out.

The, the, I mean, you know, it's kind of interesting. I try never to talk about covet acute Covid, but then this category would probably be a very useful category of stuff to eventually kind of dive into because, you know, we're basically just thinking about how to use things, to support your biology and.

Right, and there's certainly a lot of biology happening with Covid. Well, and as we come out with the, the more recent, water damage building data around, actually a really probably being it's, it's actual problem and not the mold itself.

These patients that are coming back with pulmonary nemeses, this is, the that's where I'm finding lots of great use for tax arrest. And but these are patients who are going to be using it daily for a while.

Of course, they're using it in combination with other things. It's not the only thing we're doing, but this is one of the things that's been really helpful for that, that, you know, water damage building serves patient who has the pulmonary effects.

And, they're, they're getting much more comfortable and better able to function with something like with those by our regulators. It's impressive. And so then just for people to hear and then I it's interesting, I heard this and then it's just like all of these memories sparked up in my mind when you if you walk into a building where there was a flood and then you get that almost sort of musty smell that that is a smell of accidental misses.

And then often in a water damaged building, there's mold and I kind of misses. And then also probably gram negative rods, but that I kind of mix in the mold, the combination, but potentially more so the kind of misses is actually, it can colonize our skin and you can't see it.

You can see the water damage and sheetrock, but you don't actually see the kind of misses. But you can wipe it down with soap, and then that basically dysregulated your immune system.

And then once that happens now you're basically vulnerable to other issues. And then that's basically that's a like the cliff notes of it. But then basically you're more susceptible to covet and more susceptible to things like tick borne illnesses and, viral illnesses, which are like that.

And what this the signatera. Oh, yeah. That's right. You're down in Atlanta. Tell them about Signatera as that one, because that's a real problem. It is.

So, people go down to the Gulf near me, to the Gulf of Mexico, to the beach. And there are lots of fish. It comes from a dinoflagellates. And it's a, it's signatera is the toxin that is produced by the dinoflagellates that's eaten by the fish.

So amberjack is a common, dish grouper out of the Gulf. You know, we love to go down and eat at Panama Joe's and get our, you know, crusted grouper sandwich or whatever that we're getting.

But, at times those are affected by signatera, and you can become very ill if you are if you have a genetic susceptibility to this kind of response, you can become very ill from exposure to that toxin, that secrétaire toxins.

It's just in the fish flesh. It is not cooked out. So even if it doesn't mean that your fish wasn't cooked well, it's just number one. You have a genetic susceptibility number to or maybe an environmental, but probably genetic.

Probably there's a genetic predisposition. And then, you eat this fish from the water, there's no testing available. We can test the fish. If you could find the fish, we could test that fish for signatera.

But there's no test for humans. So we're kind of guessing based on your history. I have an unfortunate, a woman who's a functional medicine doctor who came to me who was very, very neurologically ill and has been unable to work for several years now because of her what we presume is signatera poisoning.

Right. And have you have you found anything that's helpful for that? Sure. We treat them just like whatever all the search protocols, everything that we would do for Sirs, her her problem.

You know, the problem with and with a lot of source patients is they, they have that multiple chemical sensitivity, and you can't use anything. You can't use binders, you can't use, you know, you can't.

There's so much that you can't use that you because they don't tolerate it, they get worse. Top three things for that category for that very sensitive sick cohort of people, top of the top 3 or 4 things you like.

BPC is great because they almost never react to it. To one. They almost always will. We'll do we'll start them with something like SPM actives by metagenomics, like, is this a sexy fish oil?

Yes. It's yeah. That helps to resolve the inflammation in, in, theory. And, I probably will start them on okra. Powdered okra, because they usually will tolerate the powdered okra.

So then the, that category. And so then I think kind of is a nice bookend to our conversation because then we if I go with if we go down that road, then we're going to talk for six more months.

But but then it's kind of interesting to think of. So here we are with a diversity, you know, our, the title of our talk was Enhancing the Entrepreneur.

But then really, the way that we know how to enhance the entrepreneur is by fixing the real serious problems of our day, and then those neurological problems are.

And our chemical metal, which we didn't talk about, but we we will and, in the future and toxin, you know, and and then and and autoimmune and our body's reaction to it and so then basically now we're in an evolving and exciting sort of journey of figuring out how to basically take those problems away and then rebuild the body and get a basically working, functional functionally so that we can perform and do all the things we love to do.

Yes, that's right. And we just take our that's a brilliant way to think about it. And we take all the knowledge we get from those very ill patients and apply it to our patients who are not so ill, but not not optimal, including ourselves.

And, see if we can get them. If we can tweak and turn and just get that knob a little bit tighter. Perfect. Well, if you want to learn more from Suzanne, go to a forum, to the World Academy and and then come to the international website Academy and, we're delighted to have you and your wealth of information, and I look forward to our next conversation.

Thank you. It's great to to be on. I appreciate your time today. Okay. Thanks. By Matt, by.