Introduction and Guest Background

Hi. Welcome to the Peptide Summit. My name is Doctor Matt Cook, and I'm here with Natalie Needham. We have a whole bunch of mutual friends, including Jean-Francois.

She's a holistic nutritionist, a human potential and epigenetic coach, and is the host of the Biohacking Superhuman Performance podcast, and is also has a, a Facebook group which is, called the Optimizing Superhuman Performance Group.

It has a long and sort of. How do you get that? Right. But, and and, you know, for me, one part of the conversation is speaking to, you know, doctors and clinicians who are out there doing things.

And I would say as important for me, speaking to the people who are out on the frontlines, working with people, coaching people, and on the online communities because, you're really out there hearing what people are doing and supporting them.

And so I'm really grateful for the work that you're doing. And, I've just heard nothing but great things. And so, I'm delighted to have you on the show today.

Thanks so much. Well, thank you so much for having me. I'm, I'm grateful to be here and and honored, really? Because, you know, we finally managed to connect.

Yeah. We finally. It's just me and you and Baby Yoda today and Baby Yoda. That's right. I love that mug. I'm gonna become one of those. We we actually, we have, baby, baby Yoda Christmas ornaments.

On, the Christmas tree. Also send do not I'll send you one of those. We reordered like 50 of them for our friends. So, Star Wars forever. So then, so, so, welcome.

Tell me, tell me just a little bit about how you got into peptides and and what's happening. Yeah. So, so, you know, I about ten years ago, I left my corporate job and went back to school and became a holistic nutritionist.

After having left my studies and human physiology and university more years ago than I care to count. So I'm not telling anybody how old I am right now.

But, you know, I kept my hand kind of in science or in helping people, if you will, by being a fitness instructor through my whole corporate career. And then I woke up one morning and said, you know, I'm done with this.

I'm going back. I'm going back to doing something that really kind of fills me up in a certain way. And so I went back to school, became a nutritionist, which is great.

I did that in isolation, maybe for about a year or two, and then I became a human potential coach, and that kind of moved me into the world of biohacking a little bit more directly.

And it also, you know, the cool thing about becoming a human potential coach is that a lot of that training is really on how to coach people, how to help people get through, get past their own stories.

And I think that you probably deal with this a lot more than I do. I mean, people have no end of an access to no end of information. They kind of know what they're supposed to be doing.

I mean, they don't always know what they are supposed to be doing, but they're inundated with information. But more often than not, it's really hard to get them to do what they need to do, like get them through their own stories

anyway.

So that's what the human potential think kind of tapped me into. A few years later, I went to a conference and I heard someone speaking about these things called peptides.

And if anybody's listening to any of the other podcasts I've been on, I mean, I really was just looking for a place to take a load off. I, I go to conferences, I spend a lot of time in the exhibit hall because that's where you meet all the the people who are doing really cool stuff in the space.

And, and I sat down and this guy started talking, and I think the peptide, the first peptide he was talking about was Milan attend to. And, you know, he's sitting there sporting this really cool tan.

And he goes in, as a matter of fact, I haven't spent any time in the sun. And here I am just by using this peptide, I have this amazing tan. And then the next one he launched into was apatite.

And by the time he was done with the second slide, like my jaw was on the floor, I'm like, get out of town. There is no way that something can do something like that.

And so, you know, I lean over and I tap the guy's shoulder in front of me.

How Natalie Got Into Peptides

It turns out he was a compounding pharmacy owner, and he assured me that, oh, no, this is a thing. And that's kind of what launched me into this whole peptide world, if you will.

And, you know, at the time, there weren't that many people around. I actually connected with John Francois very early in the game. So I'm very grateful and proud to call him a mentor because he has taught me a lot in this space.

And I started the Facebook group and the podcast really is a way to get people to talk to me about peptides so that I could learn more. And the group has turned into this amazing kind of living lab.

Right. So it's filled with people who are coming in who are curious about peptides, many of whom are dealing with all kinds of health issues that, you know, are just really difficult for for people to get their hands on.

And so we learn together is what we do. And so that's kind of how I got into peptides. And I'm continually amazed at the things that we can, things people can do through peptides.

And at the same time, I keep having to remind people that they need to treat them with a degree of respect, because, hey man. So then tell me about yeah, we're, we're we thought we'd talk a little bit about the bio regulator peptides because you've been using those maybe give us a little history and a little introduction and how you got exposed to them.

Yeah. So the Bari, I mean, again, you know, I was so it piddle on is probably if there's one bio regulator peptide that is the most popular kid on the block or the best.

Well known, it would be a epitope on not the mainstream necessarily. People have heard of it, but in this sphere, people have heard of Apatow on and Apatow on is this bio regulator peptide that is essentially derived from the pineal gland of of of cattle, of young cows.

And so I guess I can't it was one of the first things I was introduced to. I didn't I didn't dive into the bio regulators as much early on because I got blinded by the BPC one five sevens and the Samsung patent fours.

And and you know, it's an interesting thing when we were talking about this before that, the short peptides like like the bigger peptides which are the BPC one five sevens with thymus and beta force, those are kind of like the, the ones that you use in an interventional way.

You get an injury or you have gut issues. You might use those to correct a problem kind of in a more acute situation with the bio regulators. They seem to be.

And yet, you know, again, in the Russian literature, they will use them for therapeutic purposes as well, but usually as an with as an adjunct to conventional treatment.

So the bio regulators, I really kind of heavily got into them, if you will, in the last year or so. I came across and interviewed, well, I, I, I interviewed first a gentleman by the name of Phil Mickens, who owns, he owns a magazine called I think it's the anti-aging magazine or something like that, but he has a site in the UK that sells oral bio regulators.

And so but through him, I was able and a couple of other friends I was able to connect to a gentleman by the name of Bill Lawrence, who is a researcher who works directly with Professor Caverns in in Russia.

And Professor Covington in Russia, is the guy who's done the 40 years of background work and active therapeutic work on these bio regulators that we're now we're just now really starting to understand and dig into and get research.

I think one of the big issues is getting is, is clinicians getting their hands on the literature from Russia translated in a way that they can interpret properly.

So and so then basically the, the there are a constellation of smaller peptides, sometimes two, sometimes 4 or 5 or maybe nine amino acids, so much smaller than the other ones.

And then there's, bio regulator peptides for almost every organ. So there's like two for the pineal gland, one for the cortex, one for blood vessels, one for the heart, three for the immune system.

And, this one's for the liver, the prostate. And so and they'll have a little bit of an overlap. So like, for example, the ones for the liver sometimes are good for the kidney.

Yeah. And so yeah, then also there's lots of relationships between organ systems. I echo that idea that the smaller ones and interestingly for immune patients, the smaller ones are much less likely to have any mass cell activation or any immune activation.

And so then if so, then interestingly, they, they can they, they isolate, they'll take and isolate from that organ. And so they'll do, an extraction of, of pineal gland, of the thymus, of the, the and so each organ to, to isolate that and you know, we were talking is kind of like we've been doing this forever.

And integrative medicine people would take glandular extract, and and so then you could take an exorcist and the reality is, is that there's, some peptides and co-factors in that, thymus gland that are going to help.

And it turns out they actually regulate white blood cells. So they regulate, t regulatory cells and they, they kind of balance immune function, which is pretty, pretty interesting.

And so then, you can either take these as an oral or you can, they've been able to synthesize them. And so then you can take them as an injectable. So then there's the different dosing algorithms.

And then there are algorithms of people looking at these and, and and in either, sometimes as a, as an oral and an injectable and you've been taking, you've done both.

Yeah. What's, what's what what what was your experience and what's been the experience of people who you, you've, talk to in your Facebook group. Yeah.

So the, so the, the, the way that the Russians talk about the injectables versus the oral, is that the what I've heard is the injectable will tend to be faster acting, but the effects of it may not last as long and as the oral, which will take

longer to kick in.

But the effects of it may last longer. And I think that that may well have to do with what we were talking about.

Bio-Regulator Peptides Explained

When you're doing an extract and it's less refined than, say, just the three or 4 or 5 amino acid chain, you're getting a bunch of co-factors with it.

So it's a little bit like taking desiccated liver instead of taking iron, which has been just isolated. I mean, that's a that's a gross kind of comparison.

But at the same time, I think that the what, what we see with, with the injectables is sometimes you'll see a faster response, and we see that sometimes with the piddle on one of the interesting things I've observed with the on is people who have real sleep issues.

It sometimes has moved the needle for people, even with some types of insomnia. Again, they have to be doing all the other things at the same time. It doesn't mean you don't have to do all the other work.

There may not be other supplements and it doesn't. And I'm not saying that a lot, you know, because insomnia is a major problem and it's very complex and it can have many different routes, but it piddle on with this, with this ability to and it's referred to as a neuroendocrine regulator, which I think, you know, we we tend to hyper focus on.

Oh, a piddle on is going to improve the, the production of melatonin. And it does that. But one of the terms that, that is mentioned over and over and over again in the Russian literature is normalizes.

And what these bio and I think this is why going back to something you just said where we don't see the mast cell activation, we don't see the bad reactions from people who have immune imbalances in their system.

Is that particularly those bio regulators do not boost anything. They're they're seeking to restore homeostasis to the body. And so but with the with the synthetic.

To go back to your question, the synthetic versus the oral, I think the synthetic might be a little faster acting. It's it's a little harder hitting. But it's still we still don't see necessarily that immediate hit that you might see with a with a more traditional peptide.

Because if you think about what it's doing, it's acting on DNA. It's up regulating gene expression. It's in it's it's up regulating the production of proteins.

That doesn't happen in ten minutes. Takes time. Like it takes time for the body to be able to do this and to to be able to integrate. So I think that that and as a matter of fact, I'm again reading into a lot of more of these, these tacks as time goes on.

It looks to me like even in the Russian circles, they're using the two of them at different times and or together because it's, it's almost like a top up.

Right? That's right. And, and and so then kind of conceptually, that was a good thing that you just said because, because, so many of the, many of the peptides are going to be almost like a lock and key, one that binds onto a receptor.

It does something and it's going to have an effect for a couple hours and then go away. So many, many, many drugs, many molecules are having a mechanistic receptor type of effect.

Yeah. And so then they'll it'll have a half life and that half life, maybe two hours or maybe four hours. And then you'll take that peptide and then you'll, you'll feel it for a period of time and then you'll sort of feel, oh, that's got and, and

so then for some of those people will take it a couple of times a day, for example, if they're sick, like some of the immune peptides, by but on the other side of the coin, I'll notice like the if it's like if you take the injectable by a regulator often for days, you'll feel good.

And so then I it's and that is because they're affecting the, at a genetic level. What what what genes we're printing. Yeah. And you know that if you think about sick patients and then this is just going to be this is like, I think probably the most interesting thing in the world, probably me right now.

Is that it for those sick patients, the, the, the two big things that you that that's that patients with complex illness are are presenting with a lot these days is, the mast cell activation, which is a little bit of an increase.

The main type of immune stress. And then the other one is where these, low blood pressure symptoms, when people stand up, which is called Potts. Potts. Yeah.

Postural orthostatic hypotension. And boy, I hear a lot of people say, oh, you know what? I haven't had Potts symptoms ever since I started taking by our regulators or my Potts symptoms are a lot less.

Yeah, yeah. And it's and it's addressing that and it's addressing and that's what's so fascinating. Right. It's addressing the systems that regulate those processes that we don't know how to fix.

And so we're ultimately giving the body the ability to restore function to those systems so that it can address these imbalances, you know, way that we don't even know.

You know, like I just find it so fascinating, right? Like, I, I just like my husband has Reynolds and right now I've got him pounding the blood vessel by a regulator.

And I'm going to add the central nervous system one to as well, because I don't know, you know, I'm not like I'm not a medical doctor. So I'm not fully versed in the mechanism of action.

But I'm like, okay, well, it's a circulatory issue for sure, but there could be like, like a signal, like a nervous system issue and signaling the dilation or constriction of blood vessels.

So one of the things that I think is important for people to, to get their heads around is using these bio regulators in stacks, like trying to sit and imagine what are is all of the different systems that may affect something that we're trying to address.

So for blood pressure, for example, you know, you're going to use obviously you're gonna use the blood vessel by a regulator, but you're going to look at the heart, you're going to talk to the kidneys and and the silent and the silent.

Player I think with the heart and the kidneys that a lot of people don't think about is cartilage. Because the cartilage acts, that bio regulator up regulates the production of collagen and elastin and those two elements are critical to the function, proper function of anything in the body that contracts.

And and it's right. So that that is, that is like and and I have to embarrassingly admit, I remember, I remember I don't know when, you know, like 6 or 7 years ago somebody said, oh, they said, what is your stack?

And then I thought to myself, I don't know what a stack is. When the stack, you know, I remember I remember that I was like and it was such a and I remember it well, if somebody is asking me what a stack is, I should probably know.

And then but then interestingly. You know, I, I like to say I came from the heart of the medical industrial complex and there was an idea of, of, a unified idea of one, one molecule that would fix a problem, one drug, fix a problem, or do something. But, for, for major, comprehensive, systemic, problems, often you have to do a come a combination of 4 or 5 things.

Yeah. Even anesthesia. Well, I spent my whole life doing was was never just one drug. It was always a combination of drugs that created and and experience of sleep.

And I always like to say I spent the first half of my life putting people to sleep. And I'm going to spend the second half pointing them up, and I it's and it's a little bit waking them up is a stack of things just like there's a stack.

And so then that, that is kind of that is kind of interesting to, to think about. But I would, I would 100% echo echo that that idea in, in combinations and yeah, both with the oral and and the injectable for sure.

And then not forgetting the other pieces of the puzzle. And this is something I see happen all the time. People will they'll look to peptides and bio regulators.

I mean, obviously you learn about these things at the beginning and you're just, you know, you sound like the pot of gold at the end of the rainbow. It's like, oh my God, who even knew that these things existed?

But let's not forget and throw away the other things that we also know, right? Let's not forget that for blood pressure, nitric oxide production is really important.

And so providing nitric oxide support to the person, in addition to all of these other things that we're doing, is super important. And I think that, you know, some of the things that I a lot of time, I spend a lot of time talking to people about exactly that.

Like people will come in and say, well, what's the peptide for X? I'm like, well, why is X happening? You know, what is X coming from? Why are you sleeping? What's your diet like?

Are you are you stressed beyond words which many people are because they're sick and so they're understandably under massive amounts of stress. And I think that I think for me, like one of the big messages that I strive to communicate to people is like, these peptides are amazing.

And the bio regulators, to your point, when you were talking about earlier, are probably one of the most exciting things that that we have yet that we're still learning about.

Very much so. But we can't forget about the foundation. We can't forget about everything else that we need to be doing to, you know, to allow them to, to, to tap into that 42% biological reserve that we may have in our, in our system.

The the, the, the the message and help your husband.

Injectable vs Oral Use and Stacking

So he just, you know he, I have to chase him around sometimes. He's not always very good and I like I'll, I'll get him going and then if I don't pay attention he drifts off.

But I would say that he's complaining less about his fingers than he has before. In previous years. And I also have him speaking of nitric oxide. I have him using that as well, because I do think that there's more pieces to the puzzle than the one thing you know, and, I just think he's, he's I now that I think about it, he just doesn't he used to complain about it a lot more.

Right. So then that would be a good one to just as a to unpack a little bit. So then, what happens is, is you've got blood flow going out to your extremities.

And so then normally your blood vessels can, can open up and dilate to send blood flow out, or they can vaso constrict if, let's say we're trying to, send all the blood into the core of our body.

Yeah. Yeah. So then, and, and that actually is an example of what we call the autonomic nervous system. So it is a

nervous system issue. Yeah. And so then that, so that is happening really.

And you don't have to make it, you don't have to tell your, your hand if it is a dilate, your hand does it inside the sun and you really warm your hand.

But open up. If you get cold it conveys a constrict and and shunt blood into your body. And so then that's happening all the time. As an analogy to that, if I stand up I'm going to basal constrict.

My blood vessels. If I sit down I'm going to relax. So then that and if that happens normally then I'm just having a great time and a good life if that, if that doesn't happen normally, then I might have some problems where my heart has to go really fast to try to catch up for the fact that my blood vessels are all dilated.

Yeah. And then that would be pots. So then pots and kind of brain nodes are almost on a spectrum of this autonomia. And decide I know me, I mean this sort of poor autonomic I don't know me, it would be poor autonomic or poor automatic kind of function.

And so then the we have, we have kind of, we've had positive experiences with patients with Rea nodes, positive experience with pots with vast agen which is the blood vessel by a regulator, but then also with the neurological by a by regulators and really all of Patel and PDL on and cordage on and so on.

And so then this goes to the idea, of a stack. Exactly. And so then you say, okay, well put those together in a stack. And then you said, well, but, if we're actually going to be doing this, one of the actual ingredients for, for doing what we need to do is nitric oxide.

Yeah. Actually there, there's a dilating. So we also are big fans of that. And so we have like nitric oxide creams that you can try rubbing. The hand which is interesting.

We have nitric oxide lozenges. Yeah. And and traditionally they had they were bead based and so they had oxalates in it. But we've got some now that are, that don't have oxalates in them which, which a lot of people with immune problems are sensitive to because of GI issues.

Interestingly. So then so then suddenly you can have a stack with by regulators and nitric oxide, and maybe it's not going to stop there. But then that would be conceptually like a way to, to put together.

And then now to try that for a little bit and then take a break and. Yeah, and then see how that lasts. And then it's I think, you know, you know, I, I met Bill Lawrence and was quite impressed by him.

And also, you know, the ability to have a stack like this where you're taking these as an oral is really right. Oh, yeah. Because now, now, now, you know, it's not an injection.

And so it's kind of in that supplement category. And I think that, I think that this is probably going to be an area that may be profoundly helpful to a lot of the people that are having immune problems after Covid, because those are all blood vessel problems and, and, and blood vessel nerve and immune problems, those that's like the, the problems of our, our life.

Right. Yeah. And and they're so and they're elusive. Right. I think conventional medicine has very little to offer other than maybe trying to suppress an overactive immune system or, you know, like typically there it's just we're not in a space where we're able to help the body to repair.

And these bile regulators seem to offer that possibility. Yeah. That that yeah. Potential. Right. And and I like that you said that because the you know and I was dealing with this with the referral from Stanford but yesterday but the if the only real way that we have to regulate or suppress immune function from kind of traditional medicine, where I came from was steroids.

And so then that becomes your one thing. But then steroids also blunt immune function so much that there's

downsides. And so then a lot of these people that have immune stress which is the immune system's overactive in response to something and that something is often an infection.

And so they've got an overactive immune function, and immune stress, but they've also got this infection going on. Yeah. And then they take an immune suppressant to, to reduce the immune function.

But then the infection. Yes. It's that's a yeah. That's a, that's a classic conundrum. And and and so then you know, as you, as you embark on that journey of kind of supporting people.

And so then, you know, as a, as an idea and we, you know, we're actually supporting patients with these, and which is, taking these oral supplements. And I found it to be a great place to start because it's they're, they're regulatory in a way that doesn't seem to, leave people more immunosuppressed.

Yeah. Yeah. Well, it's that whole concept of normalization, right. Even with Apatow and I read a study where they were, they had a bunch of elderly people, and for some reason, some of these people had higher than what would be considered normal melatonin production.

And the Apatow on normalized everybody's melatonin production like it raised it in the people who were too low, and it lowered it and the people that were.

And it's hard to imagine that you could have too much melatonin. But whatever it is, the this Apatow line seeks to bring homeostasis and balance to the system, and I think that it also, in many ways enhances the safety profile of something like this, because it's, you know, for for all of these, for many of these people who are running around kind of figuring it out for themselves, which, you know, I think is it can be really problematic, especially when you're dealing with complex issues.

The bio regulators, they seem to have, at least as far as we know right now, they seem to have a pretty good safety profile. The challenges that if you're not working with a practitioner such as yourself, who's been methodically applying them to various patients with various issues and and documenting what's going on, you're kind of shooting in the dark and you're not building those stacks efficiently.

Right? And it's the efficiency of the stacks, along with the other things that you can bring to it. And maybe you do need low dose LDN, you know, to to bring the in to, to to impact certain symptoms, to allow the body to heal.

And I think that's where the fuller picture of the bio regulators is really going to happen. It's with clinicians such as yourself who are bringing to bear all of the pieces of the puzzle and integrating these things at the same time.

So that one is that, Natalie just mentioned something called low dose naltrexone. And so then that's, that is a immuno regulatory also molecule, that, a lot of people will, will, will take, that has this has some, some immune, and particularly with autoimmune conditions.

Have you, have you, have you had a lot of people use that. Yeah. So I mean obviously I don't I observe this this is, this is my role as the observer in my group.

And I would say that LDN for many people has been a real game changer when they can finally find a doctor or practitioner who's willing to work with them on this, because ultimately it can help to break this cycle, of autoimmune and inflammation.

And, you know, at least symptomatically, I would say the most intractable, some of the most intractable issues I've seen have been around the mast cell activation syndrome.

Like you, you've probably come across these people where there's like, you know, you look at them wrong and they're they get set off and right. Yeah, I have seen that.

And then and so then and so think just to go back to LDN, that would be something that might be put on your stack

kind of as a part of the theme of this conversation.

Autonomic Issues, Blood Flow, and Nitric Oxide

The for the mass activation. I've been fairly impressed with another small peptide. And, and to some extent, I think we're probably both fans of these smaller peptides that, that a people are less likely to have an, an immune activation to.

But then, like CP v. Yeah, I found to be quite helpful at actually calming down mast cell activation. And so then you can do that one as a, as an oral.

And so then there are some oral combinations of CP and BPC 157 that you can take orally. You can take PV all by itself orally and it can have some effects.

And interestingly, I think it can probably calm down. The, the the immune, cells around the intestines. And a lot of times this food that can trigger, mass activation.

Then the Cfpb is interesting there. You can do CP v as a subcutaneous. And then you can also do KP v is an IV. And so the low dose well medium like CP even a dose of like 1 to 2mg IV can be quite I found it to be relatively helpful for people with a mast cell flare.

Oh, and but that's in a flare. So that's an an acute just a comment down in an acute and acute situation. And so that that's, that is and so then you and so then if you might have a stack that you when one might be taking that might be include by a regulators.

But then if that person had mast cell activation they might put CP v into their stack. And so then now as we're and and it's kind of great to have you and talk about this because now all of a sudden we have this vocabulary of, of things that we can do and, and, and many of which are orally and so that, the pretty easy, easy to take and easy to support.

And so then I think that that, that is from a, from a trajectory of helping a lot of people. I think that that one's got me super interesting. Yeah. And actually, you bring up a good point because there's a couple of these peptides that are not by regulators that size wise kind of look like by regulators.

Right. You've got your CP and then the other one is GPC. Q which is I mean, there's the doctor doctor Lauren Picard, who discovered GHQ is won't talk to anybody because he's writing a book right now.

I tried to get him on my podcast. He's like, no, I'm old and I'm writing a book. I have no time for a podcast. And I'm like, come on, just one hour. No, it's pretty funny, but TPD is worth it. I'm not.

K is worthy of a book like that peptide, which I almost wonder if it had been discovered by by Kevin in if it would be classified as a bio regulator. What do you think maybe.

Yeah, I, I, I think that and so then Gchq remember there GSK can is with copper but then there's a synthetic version of G without copper. And then the one with copper is blue.

And then the one without copper is is not. And so then if you inject the one without copper it doesn't burn at all. Whereas copper can burn for some people and secondly for some, for those people that it burns off.

Then once you start doing it a little bit and you get used to it, it stops burning. But it can it can sting a little bit when you first start to use it.

And so then, you know, there are protocols where you'll do one or the other, and then also some protocols where you'll do a combination of a little bit of copper and a little bit of G.

Okay. And yeah, we're starting to look at, zinc copper balance and sort of track, what happens as you do that? The, I also would say that, okay. As a connective tissue.

Okay. It's super helpful for esthetics. And so people are injecting, okay, copper in the face and for hair. And but I think that it it's, it's so helpful.

It's almost like a neurological bio regulator you know and and and if you think connective tissue and elasticity like what we were talking at at the beginning in terms of blood vessels, so then okay, as a, as an Ivy, we've seen to be, quite helpful for, people in neuro and neuro inflammatory and then in inflammatory conditions.

Interesting. And then also, it's an entry. You know, I found it to be helpful as, we're starting to begin to think, what with, ultrasound guided injections.

What, we do is put a needle right by a nerve and put a halo of fluid around the nerve. And so then, GSK I think is going to be an intriguing ingredient in, in a stack of, of things that are helpful for, for peripheral nerves.

Yeah. That's really interesting. Well, and it's, it's this, you know, it's what is it, is it Stanford University that did a study on Gchq then said that it positively impact over.

Is it over a thousand genes, over 4000 genes like it literally. You can imagine this little compound running, flipping genes off and on as they need to be split like it's it's a pretty remarkable substance.

And it's not it's not labeled as a bio regulator. It's that. Right? I almost I almost think it could be an honorary bio regulator for connective tissue.

Right. I think that that's true. I think that's a very, very good statement. And then what's interesting about it is, is that, in there's kind of this conversation and, and this one is, I would say something to sort of build a bridge to thinking about other immune problems.

The, the, the classic neuro immune problem of our day that people like to talk about. One of them is malt. Oh, yeah. And so then malt. It's interesting.

There's a there's some conversations that essentially what happens is the mycotoxins cause inflammation in the brain. And then and we've talked about this on the podcast here a little bit.

But then that that neuroinflammation has a constellation of effects that well do things like lower a protein called MSH, kp v is actually a small set of MSH.

But then what will happen? As as that happens is, is that from a genetic level we go into kind of a fight or flight state. So the print kind of inflammatory genes, and there's a test called the geni that we do for, for people with chronic mold.

But we're also starting to do this for long Covid. And we're also starting to do that for Lyme and to build a model of the, the effect of a neuro inflammatory condition on what genes you're printing this kind of. Right. Yeah.

And so are you finding similarities between the three, like, I think really interesting. Right. It's fundamentally they're they're, on a spectrum that is related to each other right now.

Now then, interestingly, the, the historically for the last ten, 15 years, what would happen is this there would be people going through these small detox protocols forever.

Yeah. And I see them I see them in the group. Trust me I see them all the time. So then you're going through you're going through a mild detox and you're going through it.

And, you know, I, I've kind of talked about it a couple of times, but it's probably worth talking again because I

remember so much stress that I have people that I just kind of knew in my personal life before I really understood all of this, maybe ten, 12 years ago, where they were trying to get to this point where they could take this peptide called VIP.

Yeah. And that if they could get all the way through the detox, then they could take VIP, and then that VIP would then regulate those genes back into a kind of a calm state.

And that's because VIP, I would think of as also as kind of a bio regulator. Yeah. But another tiny little was the three amino acid. Yeah. So the the issue is, is that, VIP has side effects if you take it when you're sick.

Mast Cell Activation, LDN, and Immune Support

And so then what happened is, is you have all of these people who are like on a two year, two year, detox idea to get to the point where they can take the VIP now, but, what we found is, is that when, when those patients who are in the inflammatory early part of their, their condition, way before they would really classify or qualified to take VIP, if they take g, K or if they take, the, the neurological and vascular and heart bio regulators.

Yeah. Start to calm down. Wow. And and they start to feel better. And so then as a and now that is that's a mold conversation. But I fundamentally think that that is going to be a neuro inflammatory conversation.

And so then that actually is that that conversation is a bridge to, you know, Lyme long Covid. Yeah. We've, you know, and that that whole constellation of, of, problems that we see. Yeah.

And and to your point, I think the bio regulators are the piece that are tolerated the most easily by people and just help to help it help. And it's funny, I never think of the bio regulators as doing anything more that they enable the body to do its own reset.

And it's, it's, it's a very fine line, but I think it's it's the reason why we don't see the, you know, like I myself respond negatively to a few different peptides with not that I consider myself to have cell activation, but apparently I have a histamine issue with certain peptides.

I've never had an issue with a bio regulator. Right. And so and then and, you know, it causes me to put a little more emphasis on the immune by regulators and that kind of stuff so that, you know, just helping my system to become more balanced and I don't know if down the road, after a year or two of doing that work, will I be able to be more tolerant of certain peptides that I can't tolerate now?

I can't, you know, it's hard to say. Maybe depends how annoyed my immune system got and if it's, you know. But, but I do think that that's I think that's the, I think that's, that's the real path to success with the bio regulators and, and part of it and something you just said, it's about, it's, it's a long road.

Right. So we don't use a buy a regular for 30 days thinking it's going to fix a problem. Like there's a woman in my group who had, she had an overactive bladder, and she used the bladder.

There's there's a bio regulator for that. As it turns out, there's a bladder. Yeah, there's a there's a bio regulator for the bladder. She used it I think it was for 30 days.

And she came into the group and she was like, oh my God, it's fixed my bladder. She was blown away. And I remember at the time saying to her, you know, if I was you because this is this had been an issue she had for years, I would probably keep using it ten days a month for a few months just to.

Because one thing about the bio regulators is you get that you do that initial hit of more acute use, but then there's value in kind of almost like a tapering concept, pulsing it for a little longer to keep, to keep reminding the body or keep the repair going, whatever the case may be.

Anyway, she stopped using it after 30 days because she said, oh, you know, people are like a little bit like they're in

a candy shop, right? And she's like, oh, I want to use this one, and I want to use that.

And I only have so much money. And a couple of weeks later, she came back and said, all right, you're right. It came back, you know, like the those gains that she made with that initial foray kind of slid back.

So she ended up having to go back and then repeat shorter cycles of the bio regulator. But you know, nevertheless, this is an issue where nobody had been able to touch it for her until then.

What was the condition? You know what? I can't tell you exactly what it was because I didn't. She called it, like, I think she called it a nervous bladder and excitable bladder.

So basically, she just kept having to go to the bathroom all the time. It was hypersensitive. She couldn't hold. She couldn't hold urine in her bladder kind of thing.

So she was. And I've I've met a couple of people like that. Sorry. My do Not disturb just turned off. I'm about to turn it back on. So I'm from, I wouldn't do the condition justice.

The it's it's, there's in every organ and in every organ system, there will be certain conditions that are multifactorial and cause. So like in the for the bladder an example is interstitial cystitis.

Yeah. And so then people will have an inflammatory condition in the bladder that, that is and, and and almost all sort of inflammatory conditions and almost any organ system, there's often a neurological component to it.

Sure. Yeah. And and, but then for, for almost all problems that are multifactorial with 4 or 5 aspects that may have a little bit of a nerve input and a little bit of maybe blood vessel input and often blood vessel, a blood vessel component that's controlled by the nerve.

Right. And and so then, those are the problems that Western medicine is the worst at treating, you know, yeah. And, and, and, even doctors who take care of those, quote unquote, those conditions generally, Western doctors generally hate those conditions because they're siloed.

Right? Yeah, yeah. Kind of because they end up siloed. And like, you're the you're the urology guy and then you've got a neurology guy, you've got another allergy guy, when really it's the integrated system you have to be looking at.

But that's and this again it goes back to the stacks. Right. It just goes back to building those stacks because and and definitely and I'm sure you've seen this like in the Russian literature I don't think they I don't think I've ever seen them use one by regulator.

Right. Like there's always a stack and a piddle on as this kind of master and endocrine regulator gets thrown into almost everything at some point or another, as does the blood vessel barrier.

Yeah, they're always are always doing those. And, and interestingly, you know, and I had been doing this for, for years, I was doing the you know, there were these protocols of, of a high dose of capital on.

Yeah. And maybe once a year or twice a year. And then, you know, John Francois came out with the idea of, oh, okay. What about if you went to a much lower dose and then did a little bit every month?

And so then, and interestingly, what I feel is, you know, when you, when you, when you start doing, they have a fairly sustained effect that goes days and weeks out.

So then you'll go days and, you know, I'll, I'll wake up, I'll be a cat. I feel perfect again. Yeah. And and I'll keep forgetting I felt perfect. And, and that is super interesting because now, you know, I can kind of.

I have the I feel the momentum of of of them and and so and so then we're doing, I'm doing kind of both injectable

and oral in sort of, you know, experimenting with that.

But I've been, I've been that's my favorite thing that I've ever, ever learned about. And my love. Yeah. Well, and definitely on the injectable front, you know, Jean-Francois came out a few months ago now with, you know, something that he dug up out of the literature that said that for the synthetic injectable bio regulators, we've been overdosing them massively.

And, he believes that because of, a mistake in the translation of the studies. And so, you know, we still and and, you know, what's interesting about the by regulators is they're even though if he's right and then a more appropriate dose might be 100 to 500 micrograms or maybe even a milligram at the outside, people have been using five and ten milligrams a day with no real ill effect.

Mold, Long COVID, and Neuroinflammation

The only thing I would say is the first time I used at on and I was using it. I think it's five milligrams a day for maybe, I don't know, however long my cycle was at the time.

I would be sitting in a chair and in the middle of a conversation. I'd fall asleep at 3:00 in the afternoon. Oh, really? And and I remember calling him up, going like, what the heck's going on?

He goes, oh, well, your circadian system is resetting. And it's just like not taking no for an answer. And if you're not going to bed early and you're not doing this and you're not doing that.

So but it didn't last for very long. By the end of it, I was just fine. And, I think I think that effect lasted for a short period of time, but it was really interesting to me.

But since then I've done cycles at a much lower dose. Or I will, you know, I'll have my parents do it or my husband's doing it. And for the most part, it's just it's very subtle.

It's a very subtle effect. As to your point, you wake up in the morning, you're like, oh, I feel so good today. As opposed to I don't really know why.

Right. And so then and then that gives people, a hint in terms of thinking about things. And so then on the oral front, then maybe think about just taking one pill and see what happens versus two.

Okay. Yeah. And then on an injectable front, people were taking, you know, dosing, 5 or 10mg of a day of Apatow on. Yeah. Then all of a sudden one milligram a day.

And then there, if you look through the literature and, and by our regulators. Yeah, there's, there's a lot of studies. Well, we'll look at 100 micrograms a day or 500 micrograms a day.

And, and so then, I would encourage people to sort of even though you love the we love the idea of a stack. Think about trying some of these and individually.

Yeah. And then sort of build a build a clinical experience of how you feel, with, with real low dosing and then and then evolve, evolve into kind of a, a synergy of more than one.

Yeah. For sure. I mean, unless you're addressing something specific, but yeah, I mean and and piddle is is almost a standalone. Right. If there was ever a standalone by regulator, I think it would be Apatow.

Yeah. And yeah. The of what else should we talk about? I, I don't know, I mean, I think that, I think that the, the, the important thing for people to understand is that these things are around and that they are available and that they represent a really they just represented a really exciting development in, in the space of even though they're not aggressive, like regenerative medicine, but it's almost like the baby cousin to Baby Yoda, regenerative medicine.

You know, it's a very it's a very, very is it's a very soft handed approach. And so it doesn't mean that you're not going to maybe do the stem cell treatment or the exosome treatment or some of the much more aggressive stuff when it comes to regenerative medicine.

But this is almost the daily multivitamin kind of keeping up the maintenance of the body, allowing the body to keep up, keep itself well maintained and well oiled, and give it maybe a bit more resilience to what's happening in your world.

Right. And and that doesn't mean they don't have therapeutic effects. So but when you're looking at the therapeutic effects or you're looking for therapeutic benefit because you're dealing with a disease state or a serious imbalance, I think that's where you really need you need a clinician involved because to your like what we've been talking about, you're going to need other pieces of the puzzle to help out.

But to me, the bio regulators, why there's one of the reasons they're so exciting is that they give us the opportunity to, in a very, in a very easy way that is not, there's no real doesn't appear to be any real danger to it just allows us to keep that region narrative thing going on in the system right now.

And then. So then the on the regenerative medicine front, that's a good one. This is a legitimate one because, yeah. If if you think if you go, to think about regenerative medicine, the classic thing, you think about a stem cells.

And so then, stem cells, the good thing about them is that they what do they do? They regulate immune function. And so. Yeah. And then how do they regulate immune function?

By secreting, growth factors and signaling molecules, called exosomes. And so then, they will have a regulatory and, immune kind of calming effect that will last a period of, you know, weeks to potentially months.

And so then people and so then imagine somebody who's in an autoimmune situation, a lot of times your your gifts because someone is they have rheumatoid arthritis.

Then they'll get some in stem cells and it will calm immune function. But then eventually that comes back. And so then people are getting a series of, stem cell treatments for them, you know, and we have a we have a stem cell program, but that's not in the United States because of, we're using stem cells that are grown in a lab.

And so regulatory. Yeah, there's a whole there's a whole logic for why those would be better from a, from a stem cell perspective compared to an off the shelf, umbilical cord blood, or worked into other products.

However, you know, that's having an effect and then it does. Well, it does the, the nice thing about the, about the bio regulators and if you think of it almost like a, supplement that's regulating and a balancing immune function, then you can do that.

And as a sustained. Yeah, aspect of a, of a program. And so then I ultimately think that we're going to evolve into using bio regulators before a regenerative medicine procedure.

And then probably during and then after to sustain the effects so that we we bring immune stress down and then we stay on those bio regulators afterwards.

Yeah. So then I think that that I think that's directionally I think that's going to be an important place to think about in regenerative medicine. Yeah.

No, I just I, I think they've got so many different, there's so many different ways and places that they can be assistive. Right. And and then we don't have to eat all the nasty bits and bobs that you would need to eat from an animal to get them.

Well, now, if they were, you were talking about that before, but I think that was off line right there. That's not mine. But that's the that's the, tell them about that.

I because that's my favorite. I love that you said that because I'm really into it. Yeah. Well, I think, you know, if we think about what are the bar regulators come from and where are they?

Where are they being sourced is from the thymus clients, the kidneys, the lungs, the heart, the brain, all of these parts of the animal. We're getting the extracts.

Well, if we think about people who eat a true nose to tail diet, who are actually eating, animal testicles and kidneys and, and thymus glands and, and brain, which, you know, is, is touchy these days.

Dosing, Safety, and Regenerative Medicine

Right. Like, I mean, in our society, nobody wants to eat brain. I happen to love heart. I mean, I don't know if you've ever had it. It's it's a really delicious meat, but it's to me, it's like another muscle.

People say to me, oh, I could never eat heart. I'm like, well, you eat, but why wouldn't you eat heart? Like, I mean, it's just another muscle in the body.

But regardless, those tissues will inherently provide the bile regulators to your body. And so those people who are eating those through nose to tail diets very often, like you'll read in forums or on websites, you'll see people who've been taking even the desiccated organs and in the form of supplements, who've had transformative, healing from different conditions.

And it's, you know, it can only be that they're getting those via regulators and in the sense they're getting the bio regulators with all the cofactors around it.

Like, we know that taking liver pills like desiccated liver is the best way to get your methylated B vitamins and your vitamin A and your, you know, like so many different you know, it's it's basically called the multivitamin of food.

Right? Yeah. So I just think that, I think by regulators is just a more refined piece of the puzzle. So for people who don't have the money for the supplements, the good news is you can buy organ meats pretty cheap and that will actually give you access to a lot of the stuff we eat a lot of liver and this a little I'm just gonna say spoiler alert for what I think is probably the greatest TV show in the last ten years.

Honestly, I really think this this season. But you have to understand where I'm from. Western Montana. Okay, that that's the caveat, the caveat. But there, this movie, this TV show, 1883 is kind of a prelude to Yellowstone.

Have you heard of oh, is it really okay? I really like Yellowstone, I gotta say. And so then there's a, there's, there's a scene where they, kill a buffalo, as I said, in 1883, and they're on the Oregon Trail on their way west.

And so there's a scene with, some native people, and then they kill, with this woman of buffalo, and then immediately they cut the heart out and give it to her, and they ask her to take a bite out of it.

And that's that, the spiritual aspect of it. But, you know, traditionally we've been eating. Yeah. And you look at the price passenger research that that's a good one for people to look at.

Yeah. We've been eating organs. And look what? When an animal kills an organ, what do they do immediately they eat the liver. Absolutely. First thing, they go for the organs.

Yeah, yeah. You look at, in traditional cultures, like the the Inuit, the muscle meat went to the dogs. Right. They consumed the organs, the blubber, they would boil the bones.

Like who are those two explorers that, this is the I can't remember their name, but there were two explorers way back who lit who to prove a point, lived with the Inuit for a couple of years and came back to England and were so healthy and all that.

And it was literally a carnivore diet. Because, you know, these are people they don't have access to, like lettuce and tomatoes and potatoes and whatever else.

And they came back complete in amazing health. They'd eaten things that they never probably would have thought they would have eaten before. But and, you know, and I'm not advocating for a carnivore diet at all, I think that it has its place.

It can be a great intervention. I don't know that we do as well with it chronically over very extended periods of time or indefinitely, let's say. But, but definitely, I those organs, they have a place in our diet.

So if we're not willing to eat the organs, we can. And so that's the question. And then so then that's a way, another way to think about that is to think about your stack.

And so for me organ meat is like, in the heart of my stack. And so then my stack is like, is food and lifestyle. Is this like crucial crucial part of that?

And then to me, evolving in to kind of getting really good at that is potentially and may have more to do with how you feel than anything else. Because once you get that dialed in and that's a little tricky, but it's actually not that hard.

And and then once you kind of get into it, then it like I would just I can't imagine eating like a traditional the kind of we they call it the standard sad.

The standard American. Yeah. Yeah. That's it's it's you know, once we've gone, once we've been in this world long enough, it becomes, it's such a foreign concept.

Right? I, I don't know, I don't know, I mean, I think, you know, it's, it's funny because my husband came home with these gummy candies last night, and I'm a sucker for gummies like I've.

It's it's just a weakness. And I had a couple and I'm just chewing on one, and and this is so fascinating. Like, I could taste the chemical, in the candy.

It was the weirdest thing. And I think that when you get into a world where you start eating real food as this is what you do, like, you just you're eating your food that still looks like what it used, what it came from kind of thing.

You lose your taste for some of that, some from some of what we would define as junk food. Right? You you're now able to almost taste the artificial ness of of the foods that are really, in a sense, bringing people to their needs in our society.

Right? I, I tend to me those things and even like sugar in general feels so sort of like kind of toxic that like, I, I lost my taste for all of that stuff.

And then that's like, that's a that's like a cycle, a little bit of a psychology piece too, because if you kind of I'm you almost have to hypnotize yourself into the idea that you don't, you don't like that anymore.

Yeah. And then you have to you got you. There's that part where you. And then you have to just not do it for a little bit. Yeah. You lose your taste for it and then you lose your taste and then you're kind of right.

And then and then and, and if like to talk about a lifestyle hack that's one. And then number two is to start to put these good things that and then that get that could be the nutraceutical, that could be at the supplement.

That could be okay, I'm gonna put some liver in. Okay. I'm gonna put some liver capsules. And so then it and then as people begin to kind of to play like this, then generally good things start to happen.

Yeah. No for sure. I mean, it's, it's, it's foundation. So I think like when I talk to people about bio regulators, you

know, we look at I look at them kind of as a hierarchy.

Right. So we start with the food. We start with the organ meats. We move to the, the supplements that are the desiccated organs that are now becoming more readily available.

Then we move into the by regulators, and now we move into the oral by regulators, which is that extract still from the gland. And then at the top of the heap, which is possibly the one that I think that with clinicians you can start to really play with is the synthetic injectable ones.

And so you kind of have this hierarchy of, of, of products available to you in, and it's almost like they're in varying degrees of concentration like that.

That money piece is the synthetic at the top. Not to say it's the best, because probably as we've talked about, it's best with the oral like to use both together.

But but it gives you that, that ability to kind of tap into different things at different times based on the situation and what people are willing to do.

I mean, I have friends who are vegetarian who won't even use the oral by regulators because they came from an animal.

Organ Meats, Diet, and Biological Age

And so there's a psychology around that, that, you know, the good news is the synthetic gives them an option if they really need it. So there's a vegan friendly solution.

Yeah, exactly. And you know, and then when you start talking to people about the possibility that they may be able to reduce their biological age, that's when you start to really get people's attention.

Right? Tell me a little bit about that. Yeah. So I mean, you know, maybe that'll be the reason how we close. I mean, one of the things that. So when I was introduced to Bill Lawrence, like he's he's continuing in a, in essence, he's taking on this work of doing a human clinical trial, a human trial of taking people in and putting them on bio regulated protocols and measuring their biological age before they start.

And then as they move through the three year trial and, and for me, I'd been using the bio regulators kind of ad hoc for a couple of years. Plus I'd been doing lots of other things. Right.

I use a lot of molecular hydrogen. I have a I have this aqua cure electrolyte water machine. Like, I've got a lot of different things that I'm doing in my stack on a day to day basis.

And when I did my biological age, it came out to be already eight years younger than my chronological age. And so, you know, when you start talking to people about the fact that these bio regulators have been shown, and if you look at the his research, because he's got three years now of data on these people, and he can show that using the bio regulators, he's reversed people's ages dramatically, including his own.

Not to mention that in his case, and I'm sure he told you his story. No, no man in his lineage and for four generations had made it past the age of 70.

He's the first to do that. And this is really what sent him down the bio regulator rabbit hole and put him on a plane to Saint Petersburg to meet with Professor Kevin Simon and say, I need you to work with me here.

So, yeah, we're we're helping to enroll people. So if you want to reach out to us, you can, at by that way, can help enroll you in that, trial. And then we're we're also we're doing that testing and so on.

And so then you can be you can look, there's some, some methylation tests that look at your DNA and your DNA

and, and then you can also actually measure, the, caps on your telomeres and how many base pairs they are.

And the, the companies we like is repeat diagnostics for the telomere test. And then that for the DNA methylation is true diagnostics. Yeah. Yeah. Yeah I use true diagnostic.

I actually just for ease I use child diagnostic for both. But that's part of the reason is part of it is because I'm in Canada and it was just easier to send one test.

And they started doing the telomere testing last fall. Right. Or last summer, I guess, right when I did my when I was doing my baseline testing. Although Repeat Diagnostics is in Canada, so I've heard that, but I haven't been able to find them.

So maybe the I'll send you some information for them. Yeah okay. Yeah. So I've actually enrolled a bunch of physicians into into Bill's. Oh, good. Well, because you know what it is like, I mean, physicians hear about bio regulators.

I'm like, well, I need to know more. Like, I need to know. And I'm like, you know what the best way to learn is? You go to work with him, be his test, test subject.

And it's part of the way, part of it's one of the ways people can learn about the by regulators and experience them for themselves. Yeah. And then we're, we're, launching this spring, with John Francois, the International Peptide Academy.

Yeah. And and so then we're doing a Pep, and we're doing a peptide course at Bio Reset University. So we're we're, taking some deep dives into this this year in terms of clinical issues and stuff like that.

So that'd be fun. Amazing. Yeah, that's really exciting. I'm looking forward to that actually. Yeah, I love to have love to have you with us. Yeah. Well, tell us one more time where people can find you.

Sure. So you can find me on the. Well on Facebook in my community. You can apply to join that. That's the Optimizing Superhuman Performance, group you can find me on.

Well, you can find the podcast and soon we'll have Matt on the other side of the mic there. That's the Biohacking Superhuman Performance podcast. And then on Instagram is just my name, Natalie Needham and my website, not nytimes.com.

Okay. Well, thanks for everything that you're doing. You're making an awesome contribution to humanity. So I'm grateful for that. And, and I look forward to staying in contact with you and, learning from you.

So thanks for being here. Well, likewise, Matt, thank you for all you do. And thanks so much for having me. Okay. Thank you Matt. And we.