Peptide Summit Introduction

Hello and welcome to the Peptide Summit. Today is, probably one of my most exciting, actually, that most exciting peptide summit that we've got for, this the sequence that's with my good friend, John Francois Tremblay.

And we were introduced, by our great mutual friend, Charles Paula Quinn, who, introduced us, and he told me, and, you know, I just remember just hours of laughing and being with him and just it was just such a wonderful, incredible person.

And, the all of the things that he did and, he told me, I have a friend, and you need to meet him, and he's going to be a great friend, and you need to know more about peptides.

And that was four years ago. And so then he introduced us and honestly, that was probably the greatest introduction that anyone ever gave me because I've learned so much from John Francois.

It's basically been one of the highlights of my medical practice, and he's an incredible source of information. I talk to him all the time and we're coming together, and we've founded the International Peptide Academy.

And so if you want more of the two of us, you can come see us and, Florida, in June. So we'll get all the information on that to you. But welcome. Welcome to the summit.

John Francois, I'm delighted to have you. Thank you for inviting me. It's always a pleasure. So, so you've just been a wonderful resource for the the world and the universe and peptides.

How did you get into peptides? I, I told that story so many times already. Give me the give me the one minute version. Okay. The one minute version. I was why like a ghost when I was all my life back, beginning of the end of the 90s in the French magazine, I read about Milano time, this investigation that was made, and I say, oh, I couldn't get it at the time, it was way too expensive.

Would have been like $1,000 a week, a day. So I didn't get it, but that kind of opened my eyes. Those that and other compounds that came after. So it was purely esthetical at the time.

So the interesting. And so then now we've moved and evolved into sort of all of these new, areas. And so then I thought we just kind of get into talking about peptides and stuff like that.

The, you know, one, I would say theme that's an intriguing theme for, for both of us is that basically peptides are sequences of amino acids. And so then there are some peptides that are quite long and big that will have certain active fragments.

And then there are other frag, other peptides that are just a fragment of a bigger peptide. That is the active segment or very small peptides. And interestingly, thematically, what I found and you told me this and then you told me it was going to be true.

And then it was 100% true. People respond better to the smaller peptides in general. They tend to have less side effects. They tend to have less mass cell activation.

So tell me a little bit about that. And then I thought maybe we'll get into talking about some of the fragments of thymus and before and the history of that and how you think about it.

Yeah. Okay. Many times it's funny again, because that's brings back to your first question. I know peptides there have not been they've been used for decades.

Actually. There is you know, me, I kind of come from that subculture of, well, bodybuilding, I was I was not a bodybuilder, but I coach them, I trained with them.

How John Francois Got Into Peptides

I just not good at it. But I like those timers. And that for BPC, we have known about them for a couple of decades already. They were used and and that subculture and sports, there was nothing new about them, you know, now in medicine for most people and mostly, well, doctors, it's like, oh, peptides are new.

And no, they're not that new there. As you it's new that you just learn them about basically. So when I was working with at the beginning, with athletes, I wouldn't see, side effects, like muscle activations or because I'm always careful when they say side effects from peptides.

It's a bit like if somebody is allergic to, peanuts and he gets a reaction. If it's peanuts, nobody's going to talk of the side effects of peanuts, right?

The problem is not with the peanut. It's with the person's condition. So I see that more, with peptides, too. But, intrinsically, they don't have side effects per se.

We produce them in the body. And if they had side effects, well, we'll be sick all the time, I guess, from those side effects. But, many times. And that's what brings me to that, you know, reaction from bigger peptides is that, sometimes when the body senses, and that's the immune system, basically that senses, a protein that is there there is too much of it.

It's one of its way to, kind of bring it down is to, produce antibodies to that peptide. It doesn't it works well in the sense it causes inflammation and causes problems.

And many times with bigger peptides, this little side effects won't be mass activation or immune system response. It's just that it's a big it's a big, molecule that is not usually there.

And those qualities and the body may or may not produce some antibodies. By the way, if you have an antibody reaction, it doesn't mean that the peptide is eliminated or, inactivated.

It's still working the same, except you don't filter that for some days and then you can. So get used to it or stop and wait for a few days start again and you're good.

You know, it's a bit weird, but you see that with like the biggest the big, big peptides, with the smaller one. Well, actually one fraction of time isn't better for and time is better for actually activates muscle cells.

If you work like in my case back then with that leads with, healthy people in general, then you won't see that mass cell activation because there is a threshold.

So to say, you know, you can activate the mass cell up to a degree and you won't have any bad effects.

Why Smaller Peptides Often Work Better

But now, if you take and that's what happened in the last years of my consulting, I met more and more people with conditions. If they already have a condition where they are prone to mass cell activation and, you know, it's like on the edge, then a peptide like time is in better for that.

Usually doesn't provoke a mass cell activation problem. It may be the, the drop that makes, the glass spill and bang, you have full fledged, muscle cell activation from the inside.

Yeah. And then that, I think, is also because traditionally, you know, and I had so many Olympic athletes that I took care of, the Charles sent me when when you have somebody that is an Olympic athlete and a professional

bodybuilder, these people are pretty healthy and they don't have hardly any problems.

And then their immune system is basically working great when you take the same molecule and then you apply it to people with chronic Lyme and mold and, and basically all of the problems today of our era create immune dysregulation.

And and so then and mast cell activation is one of those things along with brain regulation. And I'm going to guess it's more mast cell activation than antibodies.

Just because if it was antibodies it would persistently keep coming back. Whereas mast cell just kind of comes and goes. But then generally all of our strategies are somewhat oriented towards regulating that immune response.

And interestingly, one of the ways to regulate those immune responses is with some of the fragments of thymus and beta for some. Yeah. And then other one time as an alpha one to that is a great, regulator of the, immune system.

Basically. Well they're both they come they're called time as in alpha one beta for because they came from the same protein, the thymus in protein that is that comes out from the thymus, you know, immune system gland that kind of gets smaller as we age.

And if you live long enough, it's going to disappear. And so it comes from there. So even though they have very different activities at the same time, they kind of have, but to different degree, for example, and then that form modulates the immune system.

But no way in the or the extent that time as an alpha one does it. And the other way around, time is in alpha one is actually a good repair peptide. And actually in the in the nerve repair, we are maybe in Asia before some time as an alpha one.

And different ratios are really good but to different degrees. So depending on the condition you have to choose. But they both come and you know, there is much less known.

There is thymus. And then and time isn't with 15. But they do have some activity. But it's so specialized that nobody, you know, you look at it and say, well, no, no, I don't need that.

So it never came out as as part of any therapy. So, so this is it. And time isn't better for in particular, is is amazing. The more I learn, because over the years, there are new articles, the more it's like, well, well, it's almost it's a God given, peptide.

It does very much everything. There is that researcher last year he published an article. Not exactly, but the title was, how time is it better for? Makes the heart cells remember their native states like when they were in the womb, I guess, you know, native.

So at the most healthy level. No, no, no, not used. So time isn't that far. Does that. And the guy I've done many research on, on timers and therefore but that form with the heart, it was kind of, enlightenment for him because when you read the conclusion, they went further.

They say, oh, that that could be, an anti-aging peptide then. Oh, maybe they are more of those, like, it's a lab guy, you know, he never he hasn't been working with that molecule for years, and suddenly he has that.

Hey, that's that could be used for other things. And it's, it's refreshing to read that that article, actually, and the way we found time hasn't been that far to work is, it's kind of, keychain where, you know, you have different keys on your keychain.

Every key opens a different door, so better for it. It's pretty much the same. There is one fraction of it, one part of it that is anti-inflammatory and another part that, it's another key that it, it's the healing, section.

So, some researcher, they broke down time isn't there for, like, and a bunch of fractions, maybe like 15. Went to three, went to six. Well, I guess first they looked at naturally breaks down and they looked at, each of those fractions, what they do and they isolated for, for fractions with very, very specific, activity keys.

And that opened the door to, a new approach to use time. Isn't that for because now it gives you the opportunity knowing that it has so many activities.

But you may not always use timers in that for for all its activity, maybe you're interested in the, and so on. And so the maturity aspect of it. So now it turns out that just a small fraction of time isn't there.

Therefore is the anti-inflammatory. So you don't need to use the full molecule. And there are some advantages, of using the smaller one like the for some.

Yeah, that's another segment one four. And one of the main advantage, as you said, it's the fragment one for it's only for amino acids versus 43. That means that per milligram.

And I made that calculation. You get ten times more molecules per milligram than dimers in that four. So you get ten times the punch. The anti-inflammatory punch. You won't get the rest.

But if you're looking for an inflammation bang. So in the very small amount you get a huge anti-inflammatory response. And so far I've seen I think it's probably the, the, the most potent, anti-inflammatory I've seen.

Milligram for milligram. It dwarfs, all the other one. It's it's really, really good and also quite good for hydro to get very good around nerves. Yeah of course.

Yeah. And and that's further what you do and you know, you're the one who can talk about that. But then, but then also anti-inflammatory is going to be a huge part of anti-aging.

Right. Lessen when you get you know they tell you they found nine pathways to aging and that this and that. Yeah. And they're probably more. But at the end of the day.

Thymus Peptides and Immune Regulation

All of the things you can control, there are only two things that are vital to control as we age. And that can precipitate the aging. If you don't, it's your glycemic that needs to be under control and your inflammation.

Only those two things keep that under control. You're not going to feel good a long time. So now, of course, you could use the peptides to decrease that inflammation, but it's a good idea to look at the causes of the inflammation, in particular for a particular individual.

Of course. And, and that's going to bring us to the bio regulators. You know, I'm, I'm a strong believer, you know, to talk about anti-aging. We are programed to die, basically.

You know, nature has two options for immortality. Either you never die or you reproduce. So on this planet reproduction, that's true. And so and that's it comes down to that for nature.

Nature doesn't want us to eat our children's food. So once we, as a species, we, we procreate. And then for us, it's time to go. And that's programed into us.

So that's what you see. Basically. And it's been Greenfeld who mentioned that, in one of his conference and it was like, whoa, that they, you cannot reproduce for nature.

You become useless. So time to go comes down to that. That's what they say. Nature is cruel things just. But that's, that's that's the reality of things.

So anything you do when you're younger, that makes you stronger, right? Good diet and everything you do. At one point there's going to be a switch in your genetic encoding, expression that's going to say, yeah, but not all that is going to turn against you.

It's gonna begin the dying process. It's not like you're a guy who died from one day to the next, but, you know, you start then to accumulate, senescent cells, for example, we have senescent cells all of our life circulating, but around 50, suddenly they start to accumulate quite well because, you know, it's time to go, you know?

So it's part of the dying process. And and so, yes, if you have a great diet, you exercise, you do everything your it's going to help, but it's gonna it's not going to save you.

You're still going to die. And, and many times we see it not much older than most people actually. You're just healthier the time you live but not longer.

And, healthier, more functional to. So at that point, my believe is the only way to to bypass that is to tweak with your own biochemistry. And so far, the best tool I found for that time.

So that take me through you mentioned bio regulators. Oh yeah. Okay. By your regulators I love them. I want to extend much because I believe that's at least the the podcast on the also listening to our podcast you should have a good idea.

But the beauty of them and that Most if not all of other peptides don't do. Is that okay? If you look at other peptides, it has, they're signaling the send signals, but they need to touch somewhere.

You know, they need to touch the, cell membrane or they have to introduce themselves in the cell membrane and touch something inside or in the nucleus to provoke that, signalization of something.

Well, it turns out the Biology Letters, or almost by definition, they're you one, 2 to 4, five amino acids at most. They're, where are they? Bind is within the nucleus.

They actually bind within the DNA chain. And that's why they're small by definition. Because they need to be small enough to introduce themselves within the DNA chain.

And attach to it. And by doing so, it kind of dilate locally the DNA chain. And that's part of which somehow increases the, expression of those genes at that position.

So basically what you're looking at is, it's not genetic manipulation. It's epigenetic manipulation. Basically, you go at the core of what has happened, include that peptide increase, expression of those genes. Dang.

There you go. It's not the end of it. But, a lot of studies have been done in Russia and Russia that people, like. But anyway, and on human animals and the results and I'm sure nobody talks about it that studies that was done over with 3000 people and another one with 6000, over six and 12 years.

And basically all in all, the mortality rate was decreased by 67%. And the only difference was they weren't using two bio regulators, nothing else. No.

And people from 60 to 78. So you're talking much older people already. And I think it was them in Siberia. So with Russia conditions, sure. And attrition was an optimal, I pretty sure nothing was optimal with those people.

Well, just by adding two by regulators twice a year for ten days decrease mortality by 67%. And that's one thing they looked at other markers I don't remember.

I know, like bone density and melatonin levels and all that. And they looked maybe ten, 12 markers and basically over the course of those years, all those markers came back to neutral levels.

So, I mean, I think doctor Captain Sun is going to end up probably being what he, I would think of him is probably one of the most important doc. He's going to end up being one of the most important doctors like ever go up left because it's so great what he has done.

You know, it maybe at the time because at the time, you know, he was working for it, it was, the army and the army, they wanted, you know, to look for something to make our soldiers better.

Same as any country. And he came above those peptides. And I'm sure at the time he didn't realize. But with the years, that's almost like 50 years ago.

I'm sure now he realizes the importance of his discovery. And that's another thing. Okay. If you talk about bio regulators, you have like over 20 of them know that there's for sure more.

And each one is specific to an organ. Right. So along with the pineal gland, time a gene or similar in the extract is, thymus. Then you have the heart one there, two for the liver, there's, two for the lung.

And, you know, so on and so forth for system or for organs, you have a specific peptides.

Bio Regulators and Epigenetic Effects

But then suddenly there are studies that came up and oh, it's not only good for that. So our again, it's you know, if we put it in another kind of tissue it will have a different but positive effect.

So because there's so much and you can study at the same time, those studies were not done yet. But I'm convinced that actually all those peptides, by regulators have that strong activity in their, in their mother organs or system, but they have activities in all, other organs and systems to and I, to analyze that.

It's a bit like trying to analyze that the, the DNA code or the microbiome, you know, eventually somebody somewhere will not all that. But I think they even have more, reach than what we know so far.

I think they're amazingly, amazingly potent right now. I, I, I, I, we had a phone call with somebody who told me that they were taken by a regulator, peptides.

And I said, how how do you feel? And they said, when I take them in the morning, I take a before I get in the shower. And by the time I get out of the shower, I feel perfect.

Which would be an idea. But, you know, one interesting thing is, is we've always found that what helps really sick people will help people who are really healthy.

Oh, yeah. Because this is the principle. And if you if you there's many things you can give to healthy people that will make sick people horrible. But anything you can give to sick people will make healthy people fine.

And so then interestingly, patients with complex illness do quite well with by a regulator. Peptides. And then as a model. And then this is just kind of an interesting idea that with, with patients with profound immune dysregulation that's the result of mold and or mold.

And I'm spectrum. Then what they're finding is, is that the immune system is dysregulated, but then also at a genetic expression in terms of what genes they're printing, it's dysregulated.

And so, you know, in the, in the model 300 is the doctor, doctor shoemaker, who's an amazing doctor, also who basically they're doing this test, the geni test, and it will show that they're they're printing kind of the inflammatory genes.

And then the idea is you detox these people forever. And I first found out about this about 12 years ago. And patients are on this long term detox where they could ultimately take a peptide called VAP, which regulates gene

expression and it regulates the back into a normal.

But if you gave it too soon, those patients do terrible. But what I my clinical my strong clinical suspicion is, is that the epigenetic regulation that you get from the by our regulator peptides regulates genetic expression.

And so that if you think about complex illness, then we're regulating the genetic expression with by our regulators. And then we're regulating immune expression with immune peptides.

And now that basically rebalances patients with complex illness and gets them feeling better. Now then essentially it's almost exactly the same thing on the anti-aging side because of this.

Because on the anti-aging side, we have the same thing that those complex on this people have. We just have like 10% of it. And that's what you see. And, as I said before, as we age things, they go down.

But many times the same way, if you, provoke that gene expression through by taking peptides, then everything comes back to normal. Same thing with, growth hormone.

We know that, you have growth hormone levels. They start to decrease at the early 30s. So by age 60, you have, like, almost nothing. But it's not because the gland cannot produce it.

It's the stimulation of the gland that decreases because you just give, a secret. I go, they're very good peptides from that. And bang, your growth hormone levels are back to your levels.

It never last. And you could take it 90 years old. And that's going to happen. The the capacity to produce will always be there. And it's the stimulus that goes down.

So by regulators, like everything else as you grow old, I would say that true for. For many reasons. The decrease in yourself a lot of them we believe they actually probably come from food from May not mostly their amino acids.

So they got to come from and specific amino acids that you find in mate. So by breaking down those proteins to polypeptides to smaller peptides, then.

We all have read that, you know, if you, if you're sick, or if you want. Okay. Back like thousands of years ago, if you wanted to have courage, you would eat the heart of, a lion or an animal.

Right. And the most sensitive people. But where did it come from? Because the most sensitive people, when they would eat those organs, they would feel that positive effect from eating their organs.

So I think that, like, long, long time ago, that's how it came about. You know, I if you eat the liver, you're going to have a better function of the liver or whatever.

And lately in the last. Centuries even. That's why medicine before, drugs were invented, a big basis of of, of the pharmacy was at the time where gland extracts to, cure.

It's funny, because I've, a good friend of mine, the er in Montreal is, he used. He used to, they stopped them going back decades. The the extract of the thyroid gland, you know, for, hyperthyroidism.

And I was talking to him he didn't know much about. He didn't know about peptides at the time. It's at the beginning, but we're talking about that. And he was telling me it's funny because those clients I have that take the extract of the gland somehow it takes a couple of years, but eventually their thyroid function improves.

And and that doesn't happen if you take the synthetic one, the T4 by itself, that's not it's not going to improve. And I told him, I say, well because that's the extract.

So you get some of those carried by a regulator. And there and it's doing what it does, you know, upregulate. And

so then, that's why I'm a huge fan. And then, even darker caverns than I think would be quite positive because those, those, most peptides, a 43 amino acid sequence, if you eat that, your body's just going to start chopping that up.

And you might get on the for a segment. But if you, if you take, extract of a gland, then it's, and it has those little four amino acids and those you can absorb them before they get chopped up.

That's what we hope. Yeah. Some of it that would that's what we have. But then you that that's what I was coming to. That's a good point because as for good as you grow older, one of the system that start to fail you is the, gastrointestinal system where and we know that where you start to have malabsorption and you see it with vitamins, for example, suddenly you have enough B12 in your diet, but you're deficient, you know, older people, they're deficient in B12 because they don't absorb it as they used to.

So they give them once a week shot and, it's all good. So that's that's why it's a very complex system that is designed to kill us, basically. Part of that system, it's that malabsorption at the intestinal level of all those things.

That's why, you know, the, by regulators, they all exist in oral form. And, yes, they're great. But the question is always the same. To what degree do you absorb them?

It's like, you know, I read that from Charles first in years ago. You are not what you eat. You are what you at, what you absorb. So basically to what degree do you observe it.

And now you're talking older people that probably have a beginning of or not. So beginning of that absorption. So how much benefits will they get from the oral form.

They will of course some, but it may vary. Are they going to absorb 80%, 10%, 50%. So, but they're per se, they're amazingly good. But that, that's the only thing why I preferred the injectables because it's, you know, you inject ten milligrams, it's going to go where it's going to go.

No full milligram. So you know that that, to wonder about. Hey, do I get it all or, I would totally agree.

Growth Hormone, Testosterone, and Cycles

And I yeah, clinically, I think I, I see that clinically I've seen that, in terms of, you know, the, you know, if that would be like maybe one of our favorite categories, there's going to be another categories that are sort of via regulator like these small peptides, you know, like Cfpb is kind of interesting.

Well it's funny GHB in particular because that's one that's been known for like Picard, the guy has been doing research on that for since the 90s. And I recall in one conference I believe that Kevin Sant gave it.

He said, I wish I had I was the one who discovered this one. He loves it, but he doesn't classify it as a by regulator because, well, he did this card so but there is so much studies and it does it's a amazing peptide.

And you talk you know, we talk about the genetic effect JC one of its action. It's repair damage DNA. So by itself it's like wow we know some cancers there.

Damaged DNA. Up to 87% of the DNA is damaged. So if you have a peptide that helps to repair that DNA, then suddenly you have to die. That's helps in the cancer therapies.

It was shown to have a positive or negative effect, on gene expression. Negative one. That's an effect you don't want. So you want it to be negative and positive effects you want.

And more than 4000 genes at all levels of actions. We know it's very well known for the skin, the collagen production and everything, but it's it's amazingly good in the healing in, cancer therapies, pretty much everywhere you look at it, you just do GHQ peptide on Google, scholar, and you're going to have like literally hundreds if not

thousands of studies that has been done on that peptide.

It's very well documented. And again, it's a three amino acid peptide, very small. So probably it does introduce itself like the other. But nobody looked into that.

So we can assume but we don't know for sure. CP v same thing. Three amino acids. Probably it's it's hard to say again and more so on CP v because it is really new peptide after years.

So there isn't that many studies showing like the deep effect it may have in the body like the by regulators, but chances are that it does. And clinically we will see often a decrease in mass cell activation with CP and CP will have pain benefits.

And and then like the bio regulators and the like other sort of small peptides. You can take CP orally, although once again, again, yeah, it will be absorbed by but okay.

Pay attention. It, it does not all depend on the size of the peptide for its absorption. It depends. Is that, lipase soluble or not? Does it dissolve in water or not?

So the, in terms of, yeah, if you take it orally at the intestine level, yeah, it's absorbed. But you know, some people, they use sublingual and they think, oh, it's small, it's going to go up.

No, doesn't work like that. It's it's much more than just the size of the molecule. It's enormous. It's not that there is little holes. And if it fits in, it's going to go through.

No, usually those, those transfer of molecules are done by, you call it by, concentration gradients. So, you know, you have one side of the wall, there is more one side of the other.

Well, there is none then most cases with peptides. So because of that difference in concentration, you're going to have transfer of, you know, to balance, but it has to be able to go through.

Otherwise it would be in the bad shape everything would go through. And that's why for not because it's a big one, but because it's like porcelain and the polarity, the overall, testosterone.

You take sublingual and very, very little will be absorbed. But there are other medications that are highly absorbed without any problem. Insulin. White, white.

It's much smaller than testosterone. It's, absorbed at all if you take its orally. Well, so then speaking of testosterone, you know, when you think about it, you think about anti-aging, and then one of the ways we think about managing that as managing our hormones, be that growth hormone, be that testosterone, there's a peptide you can take that'll help.

Yeah, it's kind of new is a Kiss peptide fan. And I love this one because the way it works, it doesn't stimulate the testicle to produce testosterone.

It's, it's gonna produce the the raise of, LH hormone. Not so much. But as an adult, you don't care. Doesn't make a difference. 90% plus of the, stimulation of spermatozoa and testosterone come from LH as an adult, as as a baby.

And, in fact, yeah, LSH as a much stronger role. But later on in the male, aspect of it, LSH is, is marginal. So it raises, LH levels. So as long as the, the organ, the testicle is functional, it's a bit like the growth hormone.

Then all it needs is that stimulation to start to produce again. So that peptide raises the hormones, that brings about that stimulation. At the same time, it can be used as a test to see if the testicle are still functional.

Because if you bump them up with, kiss peptide, then and the, testosterone level doesn't go up, that means then the problem is with the organ that cannot produce.

And, it's more, that there is a problem there. It's not normal that when stimulated it doesn't produce. So then and that's why me testosterone replacement therapy, I'm all for it.

But many times I believe it started too soon when there would have been other solutions. And the only thing I don't like about the way it's taken right now, it's it's you can have cycles.

You know, we're, I'm a big believer in cycles. You know, we have yearly cycles, we have seasonal cycles, we have month cycles with the moon, daily cycles.

So testosterone is is a hormone that is secreted. It's very cyclical during the day. It works with actually LH so what happen is usually your highest level of testosterone are in the morning.

Then during the day it's gonna go down. And that decrease in testosterone during the day will provoke an increase in LH in the evening and at night, which will bring an increase in testosterone in the morning.

And you have that cycle. So now when you take testosterone straight up the form it's taken right now you have sustained levels of testosterone 24 seven.

So you basically destroy that cycle. It doesn't exist anymore. It's like and like anything else, okay. That's been done for a long, long time already.

The implication may not be that deep, but, like anything, I don't think testosterone the if it's cyclical, that's because it needs to be. You don't want testosterone floating around all the time.

Otherwise nature would have made us so. So I always believe it's better to stick. And that's why I say before you start to use straight up testosterone and the way it's used today, better look at, for example, that kiss peptide than and see if you can raise back your testosterone level with that in accordance with the daily cycle.

So, you want and they bet anything. At the contrary, you're going to stimulate the cycle again to, to go normally and then, strategically. That makes sense to me because then for those all of those people, that may be early.

Yeah. Alcohol really lowers. You know, testosterone. Yeah. Same deficiency. So pain medications, people on opioids have no testosterone at all. And so then as you began, I, I think that there's a fairly substantial opportunity for all of those people who are early in the conversation and, and, okay, testosterone is low.

Okay. Can we start to do some things and then, you know, on the anti-aging side, you know, those growth hormone secreted dogs? I think are a real central, the same thing, same thing with your hormones.

And as you just said, you know, many times the low testosterone is not the problem. It's just, a symptom of a deeper problem. So don't take it as the problem and just give testosterone.

Now why why is it low. And I'm telling you because historically, you know, may I live many years in South? Well, Mexico and, parts of South America and, you know, and almost like in the jungle parts or in the farms and all that, you see, like older men, like 80 years old.

And they're kids, not this grandkids, it's kids or like 4 or 5 years old. The guy in the 70s still had kids given to a younger woman. Neither do. But, you know, why does it decrease?

It's all part of that, process. So if you can fix that or tweak with it, then you postpone everything. Yeah, I, I, and you've, you've actually worked and interestingly, you know, you think about it, everybody was trying to give growth hormone, you know, in anti-aging.

And now almost everybody has switched to, to giving peptides. So it'll be interesting to see what happens along that line because it turns out. But you cannot take too well, you could if you would take like four shots a day of the peptide.

But if you do once or twice a day, it's just going to raise it back to youthful level, but no more. As if you're sure that your gift to. I use, for some people, it won't be enough.

For some people, it's a physiological dose. It's not regulated as when you use the peptide, you kind of have that auto regulation feedback and everything.

It's actually, and the anti-aging approach, I've never seen somebody, to high, growth hormone from taking this liquid organics. Yeah. I remember back when I was doing anesthesia and then people would come in and I would get that crowd that was doing a lot of growth hormone and a lot of testosterone.

And then it was a be interesting because then basically when you do anesthesia on someone, you do you get you understand their biology and their physiology because you're giving drugs and you're constantly monitoring blood pressure, heart rate, oxygen.

And so minute by minute, you know what's going on. And it was it was sort of like that first relatively profound cognitive dissonance that I got when I saw those people who were doing anti-aging stuff, but I was like, oh, this is not working.

These people are at, you know, the supra and everything in medicine. And there's going to be people who believe in a super high dose, medium dose and low dose.

But often I don't know what your perspective is on that. I believe even with peptides and you know that in high doses of the times.

Weight Loss, GLP Peptides, and Mitochondrial Support

But within the therapeutic approach, that, preventive approach, preventive, much more conservative, you know, you take for a few days with long breaks and you don't need to take much, you know, just a little to to get that little push too.

Right, particularly same thing with the biosignatures. They're known to have therapeutic effect. And you need but you need to take between five and in some case 30 times the preventive dose to have that therapeutic effect.

Immediate effect therapeutically. So it's the same with everything. Testosterone is great, but prevent you know, what you would think preventively you know.

So meaning to maintain your youthful levels versus what is super physiological. And then you start to see, all those side effects, you know, heart problems and, liver enlargement, organ enhancement, like a bunch of problems with growth hormones.

So, yeah. Yeah. It's not that there is a high dosage is good or bad. It's in what context? You're going to use it. Now, speaking of anti-aging, probably one of the best things you can do for anti-aging is going to be to help with weight loss.

So. Oh, yeah. What's your thought of, you know. Well, okay. I've been I've been doing podcasts for a few years now and I've been asked, either in the podcast or in some forum on Facebook, and all that.

What's the best peptide for weight loss? Right. And the truth is, up to not so long ago, there wasn't the appetite that help. Okay. You need to exercise your diet to take those peptides.

They're just going to facilitate that process you started. But really light weight class peptides. Not really. Until recently there is a new category of, peptides.

That was this discovered the GLP peptides, glucagon, like that peptide. That's the name. Paradoxically, we for so many years, we thought that you need to control the insulin.

Right. And it turns out that it's a peptide that control glucagon levels, that as an amazing effect on weight loss. And as I said, I was saying in the past that they you see me lose weight.

That's because that that I came about and well, if they're then I'm losing weight. It's pretty amazing, actually. That's as research, it's, semaglutide or commercially ozempic.

It's, it's, doctor sticks are called the, parodying change in term of it. It used to be a weight loss expert, and his practice was weight loss. I think it was even doing this surgery, you know.

But, yeah, I think surgeries. And he gave up on that and nothing works. You know, they lose weight, they gain it back. And he got fed up. And now he's back into some weight loss consultation because of that that night.

It's it's it works. What can I say. Fast regulator glycine. Yeah. It's even, some people because you know, you don't hear ear much but some people a few years ago they would call Alzheimer diabetes type three.

They would think it was related to a glucose metabolism. In the brain, the brain cells that basically the brain cells would be diabetic. And and it turns out that peptide works in the brain, too, at that level.

So if somebody was to develop Alzheimer for that reason, then that would prevent it. However, if that is the real reason somebody, developed those Zimmer but so far, you know, it's, only good things, I think good things, about it very little, very little side effects.

If it's well those then you don't see anything can be used long term. I don't know, it's it's a great peptide. And then I love that you mentioned type three diabetes being dementia, because that's like the two things we have to regulate is blood sugar and inflammation.

That's why I mean, you know, I'm not a doctor. I can tell people do this, but in my case, I'm using a certain dosage for my weight loss, but I will never stop using it after much smaller dosage kind of maintenance dosages.

Yeah, but I can only see benefits to it. And then how when I talk. Tell us then about mod. See, in terms of like blood sugar, what might see increases.

Decreased insulin resistance. Human and does that to but not lessen not to the same extent. I found let's say to work really good the first time you use it and subsequently it doesn't work as good.

Some, probably because you have higher levels due to that first course. But me, I remember the first time, I took it, and that was not long after I did, and the plus, IVs, which you down in California and maybe a month after or two, I did, 20 Days of Mercy, and I was like, whoa, that's much better than the 90 plus.

And it was that first time. But subsequently, when they did, let's see again, I didn't feel the same. That huge kick of, got the first time. So maybe could be an upregulation of let's see that was provoked the first time.

And then it takes a long time to, go down because, empirically, we found, that good friend of us that died too, last year. It did test. It actually did not see for ten days.

It was very sensitive. And, is not is that for that, insulin resistance to come back? It took about 80 days. So he did a ten days course. And for the next 80 days after he with I kept the benefits of that ten days course.

And it did the same thing with him. And then it came out, pretty much the same 83 days and came up with. So, again, it's not out of a deep scientific study, but it gives you an idea of, how it works. So.

So I still believe they're they're great peptides, but, not for weight loss. And, a lot, a lot of products I've been pushed in the last years for many things, and they didn't pan out.

I think there was some commercial, Interest in pushing them more than they were. They actually do. I agree with

that. I'm going to definitely agree with that.

In terms since you mentioned you and to tell them, tell them what you mean and as and how you like to think about that just from a mitochondrial perspective.

Well, it's part like, let's see, another is the other one. It's a modified one, SS 31. They are mitochondrial peptides. So that means they come, they are produce and they're in the mitochondria.

And the first they work in the, metabolism of the mitochondria. But we found that, yeah, they leak out and they have effects everywhere. But their main effect is mitochondrial.

And and that's what you see with, let's see. And then it's good to decrease, insulin resistance. That's at the mitochondrial level. You know, that's where the, you want to use the sugar and everything.

And, you know, true to my brain, you want that, to work more efficiently. So basically, the the and that's another thing. They kind of upregulate mitochondrial functions.

But sometime again, I wouldn't take it all the time. You know, you it's like you take much c and and then it's like you rev up the engine. Well take any car and rev it up like 24 seven.

It's going to blow up at one point. So you don't want to do that with, you know, you want to boost the mitochondria for a while, but it's always come back to the same thing.

Yes. Do it if you need it. But at the same time try to find out why it was low to begin with or why the insulin resistance. You know there are not cures to things there.

There are tools to use. But There are not, To replace, you know, if you have like, chronic fatigue, for example. Let's see, it's great for that. Somebody who has chronic fatigue, it can pull out somebody up chronic fatigue.

And certainly they feel good and all that. But then you solve the problem. No. At once you get them hooked on let's see. And do you then fix anything.

Basically it's like you have a headache. You take an aspirin. Yeah. You're I think it's gone. But you didn't fix the reason why they, they show that first.

So and there is maybe that tendency now in the realm of peptides to think that, that makes us think it does sometimes, you know, you break a ligament, take something before BP says, yes, it will fix it.

But many times it won't fix the root of the problem. But that's another thing I like by your regulators because of their epigenetic, activity, they're basically at the root of things.

And, What what was I lost my train that, we were talking about, by this as a possibility of fixing something rather than just taking something that's going to be necessary.

There you go. Okay. Yeah. And that's it. As I said before with the bio regulators, we did a the full extent of the their effect. We don't know. And for a while I was kind of pushing mud.

See for this for that. But then I thought I said, well wait a minute. If you upregulate, you know, you take the bio regulators and all the, the main systems are upregulated to where they should be.

Then probably again, no studies done. We don't know. But probably there are much C levels will be back to neutral levels to like everything else.

Closing Thoughts on Dosing and Peptide Strategy

So at one point, somehow it always takes me back to the micro regulators for a long term, use and without breaking my head with the exotic peptides or new peptides and all that.

Now it turns out that the more it's like at the basic of, of peptides and, I strongly again, I repeat myself, but I strongly believe, some protocol of by regulators, it's not going to happen from one day to the next, but over time, it's going to, fix a lot of things by itself without disturbing anything.

I'm going to basically totally agree with that, which is why we're good together. But among other reasons. But interestingly, one thing just to think about then need to go into that chronic fatigue thing is, is that a lot of times infections steal energy from your mitochondria, which is their fundamental cause.

However, interestingly, sometimes as part of just getting people going, some mitochondrial support can be helpful as a little bit of a bandaid. But then while but then while you're getting them better with that, which is sort of a feel good support you actually actually affects the underlying thing, but that it also could be some of the things that we talked about here.

Exactly. But then and then I just want to echo Show you sort of somewhat in conclusion, how supportive I am. And I think how there's a lot of wisdom in your comments of these cycles and these rhythms of, of nature and biology and life.

And so then and interestingly, even bio regulators help reset those. I think Piniella and Apatow on, on the pineal gland and melatonin cycles, it's, some people, they started older people.

They had like huge sleep problems, took a long time. Many years ago, I was straight when I was training athletes and, you know, an athlete, they compete.

So the few weeks and months before that, basically their bodies array, they kind of sleep their own strict diet. Nothing is going right. That's not very healthy, actually.

But they look good. And the best way I found for those people to get back on track fast after their competition, it would be high dose of the, the most common, I would get the most common, comment I would get was, oh, but, you know, they would call me after a couple of days.

I'm sleeping 15 hours a night. You know what's wrong with me? I said, no, nothing is wrong. It's working, you know, now you fall asleep, you have deep sleep and it's all good.

So again, they're called bio regulators for a reason. They do regulate things. If there is, like the adaptogens, you know, with no plants that, you know, if something is too high, it's going to bring it down.

If it's too low, it's going to bring it up just to be where it should be. No more, no less. So that that's what they do, basically. And then you're I'm crediting you, I guess, for this idea as, as phenomenal as it is.

And then that I've done that also myself as taking high dose of up a towel on like ten milligrams or something like that. I think kind of microdosing what, what you came up with is that idea of taking a lower dose overall.

I didn't come up with that. It was all in this that that's a mistake. That's that's a derivative of cabins and maybe. Yeah. No. If you look at the studies, okay.

It comes from a pretty long, very long story short, you would read the study or those studies and it would talk about the pit along and epitome. Right.

For the longest time we tried, they were the same. The molecule, the, epigenome, the, the, four amino acid peptide. Well, it turns out it wasn't. One is the glandular extract of the pineal gland, and the other one is the peptide.

And eventually there is one study that came out where it compares and it says, oh, if you take the extract, which is,

I don't know, not remember which one is by name now, but let's call it the I alignment.

So if you take the extract you will need ten milligrams a day. But if you take the peptide you will need 0.1mg, because in the extract, that's roughly the amount you'll find.

You know you get ten milligram of the extract, but the extract is not. It's like a bunch of amino acids and all that. And 90 the peptide is in there. But because I don't know, badly translated or misunderstood, I remember reading, you know, translation the milligram to microgram.

So that's why you would see those discrepancy. It's almost like we didn't want to see that. Oh no. Oh yeah. It talks about microgram and you're talking about milligram.

What's up. But it turns out that we were wrong. There are two like Tamerlan Tamerlan with an there is an extract of the time is you need to take ten milligrams a day.

The active peptide in it is time again you need to take 21 milligram. And that's the therapeutic dose they use in Russia. You know it's it's a medication in Russia.

Time again. So it's pretty much the same for all of them. When we talked it was five, ten milligrams a day. That's those are nothing wrong. Just got a lot of it.

But basically there are therapeutic, dosage. And what you called microdosing is actually the actual right dosage that you should be taking. It's a good one.

It's a good one. Well, it's, just, a highlight. And it's not a pleasure always for me to be with you. But I love traveling with you, because, see, when I travel, when I travel with John friends.

What then? I just get this, and I get it for, like, 6 or 7 hours, and I just. We just talk for hours and hours and hours, and it's the highlight of my life, which is, why we're going to bring it to you and the International Peptide Academy, which is going to allow me to continue to travel with you and, and, be, exposed to the wisdom and, generosity of spirit that you have.

So I'm grateful, to be associated with you. And, thanks for everything that you're doing. Well, likewise, because you're my number one. You know, if I were not get feedbacks, peptides.

You know, you're the guy, thanks to your, explorative mind of things that are really good. Okay, well, we look forward to, we we look forward to seeing you together, and, we'll sign off for now, but have a, fantastic experience this week.

Talk to you soon.