## Introduction to Phil Micans and peptide bio regulators

Welcome everyone. If you've been spending any time in the world of peptide bioregulators, you have almost certainly crossed paths with the work of our next guest.

Whether it's through his writing, his decades of advocacy, or the organizations he's helped to build, Phil Micans has been one of the most tireless and influential voices in the anti-aging and longevity space for over three decades.

As a pharmacologist and a founding member of the International Aging Systems Organization, he's dedicated his career to bridging the gap between cutting edge research and practical application, helping both clinicians and curious individuals understand what the science actually says.

Phil has a particular passion for the work coming out of Russia, specifically the extraordinary body of research pioneered by Professor Vladimir Ken and the Saint Petersburg Institute of Bio Regulation in Gerontology.

He's been instrumental in bringing awareness peptide bio regulators to the English speaking world, at a time when very few people in the West were paying attention.

Today, Phil is going to walk us through what makes these short chain peptide bio regulators so compelling, how they work at the epigenetic level, why the decades of clinical research behind the matter, and what this means for how we think about aging and tissue restoration.

This is one of those conversations that I truly believe will genuinely shift how you see the field. Please help me to welcome Phil Micans Phil, welcome.

Thank you very much, Nathalie. It's an absolute pleasure to be back with you again. Always. We always, always have a great conversation. And so let's do Let's talk about the peptide regulators.

This is what people are here at this summit for. And I could not possibly have done a summit on this topic without having you on. So, can we just frame for the audience very quickly what these are who this cavernous in person is really, really fast.

And then we're going to we're going to quickfire some questions and get get people clarity on what they are, how to use them and what the research is behind them.

No problem. Well, Kevin's professor, Vladimir was one of the great individuals that I've had the honor of meeting in in my career. And he. I'm talking past tense because unfortunately, he left us about a year and a half, two years ago, and he was the head of a very prestigious institution in Saint Petersburg, Russia, which was the Bio Gerontology Institute, had many, many famous scientists who worked at that institute.

And he, believe it or not, was a colonel in the KGB medical corps. I mean, we're going back now to the Soviet Union. Okay. And he one day received a call from the Kremlin, and the Kremlin said, our troops are having some problems.

For example, submariners were aging too quickly. And when you think about it, sitting on a floor bed for six months next to a nuclear reactor isn't going to doing much, much use.

Dies in missile silos and then also the elite troops and other such things. And they were also concerned that there were battlefield weapons, like a laser, that if their troops saw this laser, it would blind them.

So they said, we've got to have fixes. Go and find something. Now that was a real open checkbook kind of situation and Vladimir actually told me in person once he said, Phil, if I was asked to do that today in modern Russia simply would not have the resources.

But in the Soviet Union, and we're talking now 1980s.

## Professor Kavanagh and the origins of bio regulator research

You know, he could pick the phone up to anybody, anywhere and say, I have I'm on orders from the Kremlin to do this, do that. And it would be there. The next day.

So he had enormous resource, but it took me a while to understand why he ended up looking at these particular short chain peptides. And we're talking of two, three, four, five and sometimes six amino acids.

And it was only later I discovered that the at the same institute in Saint Petersburg had been Pavlov. Now, I think most people have heard that name because he was the guy that made the dog salivate, right when they heard the bell, that Pavlov was actually the man.

And I can't give a date, but obviously it's going back quite a way. Who discovered short chain peptides? And Vladimir took that and he said, what else do we know about this?

And so they started to play with these short chain peptides. And what I'm trying to do in a nutshell is 40 years of research. Okay. Immense research. Yes. Boast of it.

Published in Russian, although that is now changing. There is a lot published in English and was initially a Soviet military secret. Okay, because what they had discovered was these short chain peptides found in different food groups act as gene switches.

And they the remarkably and I don't think anyone can fully elucidate why they silence. They activate and silence genes. Okay. And that's and that's why I think the name bio regulators has been applied.

I sometimes say to folks who are who are more familiar with adaptogens, you've got these plant legends that they know, of course, that it helps to rebalance maybe hormone levels, for example.

Well, these by a regulator. Peptides work in much the same fashion, but they're even more targeted. They're even more specific. And together with and another professor from the same institute, we managed to create an English book which shows the science side behind what I'm talking about.

And, and that was called peptides in the Epigenetic Control of Aging. And if I may, I'd like to tell you a short story. Okay. So my first degree was in London.

I think it can all tell I'm English. And that was in 1981. Today that place is called Thames University. It wasn't called that when I was there, but never mind.

And one day in I it was termed food and vitamin technology. Okay then I think we might say nutrition now. But anyway, One day. God, I feel old one that one just wise.

Just leave out the old one. One day the lecturer on the overhead projector. No PowerPoint guys. And put up the slide. And on this slide there was a pie chart.

And he said, this is an average. This is what we can expect to find in food. And there was exponential the mins exposition. I preferred to call them some fats And but most of it.

I can't remember the exact number now, but there's about 55% was fiber. And I remember looking at that slide and I thought to myself, wow. Why is so much fiber?

Because I've always believed nature waste, nothing like obviously. And then the other things as well. And at 1981, nobody was really talking about fiber.

Okay. Because remember that they barely are now. No. Right. So I thought, wow. So fiber must be a lot more important than we think. And my second thought that popped in my head on that day was or they've missed something.

And of course, you know, we could talk about what what their magnetism, light. There's all kinds of things right in food that might have an infra heat, might have an influence.

But fast forward to 2010, from 1981, and I found myself in a lecture hall in Istanbul, and it was my first opportunity to listen to professor cabins and talk.

And when he's talked about the short chain peptides found in food that acted as gene switches, it was an epiphany for me. If I'd been a cartoon, there would have been a light bulb over my head because I sat there and the next thing was a coffee break, and I sat there in my seat as everyone went off for coffee because I thought, oh my God, this, this is an amazing moment because it took me back to that classroom in 1981, and I asked myself, had they missed something that is in food?

And the answer, of course, is yes. They missed these peptides and now we know about them. So I know you think, well, gosh, even 2010 was quite a while ago.

But information comes out very slowly. And you know, these are they. Yes. They can be made synthetically that what we're mainly talking about are they are natural.

And as I'm sure we all know, Big Pharma is not interested in natural substances for all kinds of reasons. So that was my awakening to this. And since that day, I've been trying through various means, and I've helped create magazines and books and meetings and obviously websites to try and further this information.

Yeah, yeah. No. And it's it's a fascinating body of information. So maybe take us now to the next step, which is after professor figured this out. And it's interesting, I hadn't realized it was.

Well, I guess I had heard it was based off Pavlov's work, but I that I kind of forgot about Didn't have lives. Work also indirectly lead to the development eventually or discovery of BPC 157 from the gastric juice of the dogs.

I think it may have. Yeah, But anyway, that's just very that's that's fascinating. But let's let's talk a little bit. Let's again fast forward because you're now we're taking four decades of history and jamming it into ten minutes here.

So he discovered these bio regulators. He figured out that that they're epigenetic switches, that they're they're acting on the DNA. So they're actually to get into the nucleus of the cell.

But now let's let's help people understand, you know, he he kind of isolated two initially. Right, was the pineal gland and the thymus and then went on to commercialize 22 I think.

But there were a lot more in his bank.

## How peptide bio regulators work at the epigenetic level

But before we go into that, let's talk a little bit about some of the work, the research studies that he did to try to understand how these things actually work in the human body, because he did, you know, he did his computer modeling.

That book you mentioned actually does a beautiful job of explaining that, you know, him and his team went through the computer modeling. They then went through the animal studies and then they ended up extended to humans, dare I say, properly?

You know, they started in vitro, they moved on to animals, and then they moved into human studies. That's all being done, you know, and and not only done, but done in a big way.

And I'll mention some members of the moment and, you know, and actually the numbers of flabbergasting compared to what gets done in the West. But remember how things were in the Soviet Union there under the Communist rule?

It was the way it was that, you know, one source for everything sort of thing. So and also, by the way, a lot of their studies were sent to the NIH in America, National Institute on Aging, and they confirmed the studies.

I mean, especially the work with, say, on, showing maybe why it somehow landed on that no go list. Maybe. Yeah, maybe. And of course, what's interesting, let's take Apatow on as an example.

Of course they have. This is a crazy thing about learning another language when you get into this, because the names keep changing the better. Which natural synthetic to being really it's a nightmare.

But I just like to keep things simple and say it's the pineal peptide or the thymus pentad so they don't mind. Excuse me. Please do. But with the pineal peptide.

So on synthetic you know they showed that by stimulating if you will, by activating the pineal gland, lots of interesting things happen. For example, there were improvements in the endogenous production of melatonin, for example.

So but what's fascinating and I haven't got my head around it. And I have to admit, when I asked for it, he hadn't got his head around it at the time is that, let's say let's take the thyroid because people understand thyroid easily.

So you are a hypothyroid person, which a lot of people are, that two out of three adults probably are to some degree hypo. But you don't produce enough thyroid hormones for whatever reasons.

If you take the fire roid by a regulator, it will activate the genes responsible and you will start to produce more thyroid hormones. Note the word hormones because of course it's not just T3 and T4.

There's also the forgotten T1 and T2, so it's produced endogenously naturally in a balanced way. Okay, it's not like taking a drug and just throwing T4 down yourself and putting things into an imbalance.

That may help to explain the extraordinary safety record of these bio regulators. And professor Khavinson once said at one of our meetings that he'd estimated that the buyer regulators had been over the 40 year period.

And by the way, we're talking Russian speaking countries here. It's not just Russia, it's Kazakhstan and Ukraine and all the others, okay. All the places, all the places that have starred in their names, etc..

And and he estimated it had been dosed a hundred million times with no serious side effects. Okay. So that gives you an I think this balance is part of that trick.

But here's the crazy side of the equation, okay? If you are a hypothyroid individual, in other words, you have too much circulating thyroid hormones. It will silence the thyroid.

And actually you'll see the balance come down. So like an adaptogens it's kind of operating within this band, this normal band. Now the bodybuilders may not like the story because and I've spoken to some on this level, want to get their testosterone levels sky high.

Well, they're already doing a bunch of stuff that has led their testosterone for their age to be at super logical levels. Okay, taking a testes peptide and there is one is not going to do anything for them.

Okay. And let me just say as well, this might be blinking obvious, but let me just say as well the ladies have no

testes. I know there are people out there saying that's not true.

They don't, they just don't like it. And therefore there's no point in any lady taking the best testes peptide because it will not do anything for her.

In the same way, there is no point in the man taking the ovary peptide. And there's also a third one which is a prostrate which. Thank you. Which which of course, again doesn't do anything for the ladies.

But with those three exceptions, there's a total commercially available today of 21 So no. So just to to to go back to Professor Khavinson and, you know, on the nomenclature, just so you guys know, there will be a handout available to everybody who's goes to the summit where I've actually broken down every bio regulator and it's many names.

Every bio regulator has, has at least three names and and but it's important to know the names and the differences in the name because otherwise you end up with people dosing one way for the wrong form of the peptide of the bio regulator, which is where we get in trouble.

So I have I have a question for you. And then so I'm going to ask the question and then follow it up with a follow up question. And that is that there's a narrative circulating right now that people believe that at the Talen, specifically the synthetic Neil Glenn bio regulator could potentially present a problem for people who have active cancer because of the way that it activates telomerase and the the fear.

I think there's a concern that the cancer cells might hijack that function and use it for their own gain. Do you have an opinion or any knowledge on that?

Well, we've heard this story from other angles. There are a couple of supplements on the market. One's been around. I mentioned names if you want me to, I won't if you don't want me to.

There's one that's been around for a long time and they lived with this, this invention. It basically 65. And they lived with this same story for a long time, you know.

Oh, you shouldn't give it to a cancer patient because cancer cells have long telomeres and what's the point of their lifespan, etc.. But there have been some very prominent people, like Michael Rose and others who have come out and said, no, no, we don't believe that this is that.

We do not believe it will turn them into cancer cells. Oh no, it was about turning them into cancer cells. I think it was more about existing cancer cells.

So this is someone who has cancer. So I don't I don't, because the thing with the plan by a regulator is it has some immune modulating properties. As a matter of fact, Cavanaugh did a few studies that showed that it had some anti-tumor benefits, just probably through the immune system.

But it was more about if someone has an active cancer, might it be prudent, in the absence of a double blind, controlled crossover study, to say, well, for this very minute, maybe we stay away from this one.

We focus on those things. It is a difficult one to answer. I can put my hand on my heart and say, nobody has ever told me that it caused the problem in that God and I deal with quite a few docs.

And that was true from Professor Cab as well. And and his wife, who is alive as a Svetlana. And so they've never said that. I know that Khavinson would have said the best peptide, the best spiral regulator for cancer is the thymus.

Yeah. He was he was very keen on on patients receiving the thymus in cancer cases.

## Research evidence, safety, and major human studies

But I've never would he be prudent. Difficult question to answer because the trouble with a patient with cancer, they're probably receiving a lot of therapies.

Right. And you don't want that mismatch of complications. So I would have to answer professionally. Yes. It would be prudent to take some care. It's also true with people who have severe autoimmune issues that it would be prudent to not go at it gung ho to build up slowly.

But again. Kevin Sun and other members of his team never highlighted that as a specific problem. Concern. Yeah, but but I know that. I mean, thanks to you, I interviewed Doctor Trofimov, who is Khavinson's widow, and she she very kindly offered wanted to send me some bio regulators, but she wanted to see my blood work.

Yeah. Interestingly, I think she wanted to see where there might be some imbalances that she might want to focus on. And I and, you know, I think that, you know, this is an interesting point to the conversation I didn't know we were going to cover, but I think that it is bio regulators for someone who's looking to age well and is looking just for a kind of like a sprucing up of the systems, if you will, a fine tuning of systems as we age.

It's not that hard to say. Okay, I'm going to do a cycle of blood vessel, heart and kidney. And next I might do the liver of the stomach and the pancreas.

And then I might do, you know, you know, so the the adrenal, the thyroid and the central nervous system, let's say it's not a very difficult thing to do, but what's, what's interesting is and this will bring us to a next point, is that they can be used in that fashion to say to tune up the system as we get older, but they can also be used to point to, if not completely, to do the therapy.

But even as an adjunct to therapy, to conventional therapies when we're dealing with specific imbalances in the body. And so maybe, maybe I would invite you to speak to that a little bit, because that is their kind of superpower, right, is not only to use on their own.

Sorry. Of course, they used injections in serious cases. But I should point out that the orals which are sold today, I'm talking about natural bio regulates. Now.

I've sold today as food supplements in quite a few countries. They, they are nano size. They survive stomach degradation. And they, as you said earlier, they interact directly with DNA.

They're not looking for a receptor. So they they're very direct in their path and they do work. And I'm sure you've interviewed I know you've interviewed doctor Bill Lawrence, who's based in Atlanta.

And of course, he has quite a few hundreds of patients who and he had testifies to all these improvements that his patients improved DNA methylation, improved Kelaniya length.

And now we talking about organ regeneration as well. I don't know on your podcast about that but but so there's a lot going on there. So which is all good obviously all great news.

Although I'm pretty sure he avoids cancer patients because but I think that's take them into the study. Yeah. Because too many other complications going on.

Right. And you and you don't know if all the other things they're taking has caused them an issue or this thing, you know, so I kind of get where he's going with.

And of course, he was a former lawyer as well. So I said, yeah, Bill has very clear lines. Yeah. Well I get I get it, I respect him for it. You kidding.

So but they do work and just let me come back if I may. I alluded earlier to the large human trials that took place, and there were 2 or 3 that come to mind.

The biggest one was get was was conducted with workers of Gazprom. Now Gazprom are Russia's oil and gas company. Right there did. And this particular study and most of these people, by the way, lived in Siberia. Right.

So already a tough environment, right? This is not an office worker in New York. the study, the memory serves me right, had approximately 11,000 people in it.

I think the last time you heard herself right. Amazing wasn't it? And what they did, they split them obviously into two. This was a double blind, placebo controlled study.

And they gave a how many was it now? Was it 8000 or 3000? Anyway, they gave X number 100 in that study three peptides, three by a regulator. And they were the pineal the thymus and the blood vessel.

Okay. And the other guy's got some vitamins. Right. And they followed up on these people in three years. In five years and in 1000 people case. Right.

They, they, they didn't carry on with 11,000 people over forever and ever. Amen. But they did follow up on a thousand individuals 12 years later. Right. Again.

When's the last study you heard that had thousands of people in and was conducted over a decade. Right. And what they and of course, these people aged, you know, over 12 years, they may have started in the study at 55 and now now there were 67 or 70 or whatever.

So there were young people. They didn't start with 25 year olds, you know, these were people already middle aged and then and then retired or whatever by the end of the study.

And the and these were the three principles, as I said, it was the pineal, the thymus and the blood vessel. And what they found is in the bio regulator group, they had one third of the morbidity of the receiver group, and they had one third of the mortality.

So they not only prevented a lot of health problems, but they also make them okay, which is pretty remarkable. But if you think about those three, I mean, there's lots of other good by regulators.

I particularly like the adrenal myself. It depends on your weakness, doesn't it? If you know what your weakness is because you've had a panel done or you know your family history, whatever, you've had your DNA chip, maybe even then you can.

I suppose this is true of everything. Whether you're taking hormones or drugs or exercising or eating certain food groups, you address your weak points.

And if you think about it, the the blood vessel improves blood flow. So and improves nitric oxide release. So that's probably pretty much a given universal.

The thymus of course boost immunity. Well that's a given. But the pineal is is more is kind of like what you know, now I know my mentors was an Italian gentleman doctor Walter Pauli and Walter did huge studies on the pineal gland, on melatonin, you know, in the 90s, etc..

And he always said the pioneer was a very, very special gland for all kinds of reasons. And yes, it produces melatonin. We know that, but it does quite a few other things.

But of course, fundamentally it puts us on the correct circadian rhythms day night, day night day night. And it's only when we have that that we have hormonal cyclists.

And with hormonal cyclists comes immunity. So it's something at the very core. I've got to tell you this because I love quotes. I and Walter gave me the icon.

I'll never forget that. So he said to me one day he said in his wonderful Italian accent, he would say, Phil, don't forget that the pineal gland is the conductor of the endocrine orchestra.

Said, imagine that. He said, what happens? You have orchestra and you have a no conductor. You have a noise. But when you have a conductor, you have music.

And I love that and that, and that is one of the one of the big. And not a lot of people talk about the endocrine. It's really like an endocrine balancing effect of the pineal gland.

So for the Gazprom study he did more than one with the Gazprom people. Right. Didn't you do another one where he used five mile regulators? Yes, he did one in the city of Kazan, which is central Russia, and that was on tractor workers.

And I think if memory serves me right, there were 3000 people in that study. Okay. And they all produced similar results. Nobody went on for 12 years like they did in the Gas Proms.

I think it was easily four years sort of thing. But again, they were proving vastly reduced morbidity and and significantly reduced mortality, you know, so and I think one of the other metrics they used, and I guess this was one of the ways to get the factory to agree to this is they were able to show that there was reduced absenteeism, there was an increase in productivity, like people in general were healthier who were getting the bio regulators.

And it's also common knowledge. I'm not giving away any secrets because it's published. They also use them in their Olympic teams. They also them in their cosmonauts. Right.

And especially on return because they found, you know, imagine going out into space for 1 or 2 years. You know, it's the degradation that takes place on the body.

## Clinical use, dosing, and combining peptides

Well, these people were returning and they were in a hell of a mess. You know, that muscles in a trophy and all kinds of things going on with them. So they put them on the courses of the, of the and they recovered much, much faster.

And the shock one is in London, the last London Olympics, which I can't remember. It was a little while ago now the Russian gymnastic team won gold and actually got to meet the team.

Believe it or not, one of the me or some of the girls in the team. And of course, these were young women, you know, 20 year olds or whatever. They're young, young women younger than that, most of them, and some of them younger than that.

And of course, they just won gold medal at the Olympics, the top of their game. Right. And super fit and you imagine and of course, looking at them you go, wow, yeah.

Super fit, well done. Amazing. But when they tested their telomeres that come back to this telomere thing on the return from winning gold, they were shocked that the average telomere length was a 40 year old.

Yeah. And yet he's this super 20 year old right. So but why. Because they put the their training for the Olympics. The pressure of the Olympics had put them under enormous stress.

But the interesting thing was within a few weeks I think it was four weeks, if I'm right, of being on some of the peptides, they returned them to normal now. Wow.

Be honest here. Biological age measurement is a is a whole game in itself. Everybody wants to know what their global biological age is, but it's an extremely difficult thing to undertake.

But you could work out what your tele age is or your DNA methylation age is. You can take them as individual, individual measurements. But let's be honest, if you're 25 years old and in good condition, you're unlikely to be reversed ten years to when you were 15 years old, right?

That's that's a bit silly, but if you're middle aged or older, you can make significant ten year, 20 year differences that can be done okay. Which is show obviously.

Yeah. Well, and I think what's interesting in that space is the now that the methylation clocks are becoming much more specific to, to particular systems and organs like, you know, this was we've been talking about these, these, these diagnostic tests now for, for a number of years.

But every at least every year, if not more often, there's new updates and new upgrades and new it's a it's a really growing field. It's fascinating. Steven Horvath, who was the inventor of the DNA, is fact.

It's called the Hobart Clock. He was on record some years ago of saying, yeah, we can measure this DNA methylation. It's extremely difficult to change.

In fact, I don't think we've got anything that would make any significant difference. Well, that game has gone past. But what we do know about DNA methylation test is small differences mean a lot.

So if you are 1 or 2 years older in your DNA methylation, it can make quite significant increase risks. And and vice versa. If you're 1 or 2 years younger than your DNA chronological age, then it can make significant benefits.

There are now, I was told this fairly recently. There are now some police forces around the world. Let's say they go to a scene of a crime. They've got some tissue samples, blood whatever from the perpetrator.

They believe. Now what can they tell? Well, they can tell the blood group. They could perhaps tell the sex few other bits and pieces. But if they haven't got that individuals DNA on file, they don't know who they are.

Right. So all they can do is hope that they catch that person and do a DNA match. But it doesn't help you in finding that person. Well, I understand that some of them are now doing DNA methylation testing on it, and now they can guess within a reasonable exercise how old the individual is.

So now they now they know they're looking for a male blood group A who's between 35 and 40. Right. So so it's interesting. But what if what if they've got accelerated aging or decelerated aging?

What if what if it ain't perfect? It ain't perfect. But don't forget that that number right is rarely more than 3 or 4 in either direction. It doesn't move the needle big.

My mine. The last time I did mine, it was eight years younger. So I, I was say up to seven. Actually it was what I was going to say but it's not you know, it's not.

Yeah. Well I mean look there are definitely people moving the needle even further than that, but I but to your point, I think it's a, it's still a very much a young nascent, evolving field.

And so I think the value of it right now is to measure over time and to see. Have you gone up, have you gone down where it's a little bit like body weight, right.

Your scale may or may not be correct in an absolute sense. I'm sorry. I will change all this. I had the pleasure of being in Abu Dhabi about a year and a year and a half ago, and I was invited there by a group called prepare, and they are creating AI medical software.

Okay. And I won't mention the laboratory. There was an American laboratory also there at the time. And the man who's in charge of that project is a gentleman by the name of Professor Min and who gave me some amazing statistics.

I can mention a couple if you want me to, and they're fascinated by peptide as well. Okay. While they drag me over there and they, they, they, they built the world's first laboratory that has no employees.

It's all robots. Which was amazing to see. It's all AI, AI, AI anyway. And he was saying this particular well known American laboratory was there, and he said, show me your most.

And I happened to be in on the meeting. He said, show me your most comprehensive analysis of a patient. And the guy out of his briefcase pulled. This must have been at least 60 pages.

Ivory Waltz, right? Every test they do write 60 pages, right? He said, this is the this is everything we've got. And Professor Min looked at this. He said, it's fascinating.

He said, but to try and even a knowledgeable doctor or doctors going through these papers, it's overwhelming. It's too much. What's silly? With your permission, I'd like to run all this through our software and I want my software to pinpoint what is the most important things to be focused on.

So the guy goes, yeah, sure. How long will it take? He said, well, let's have a cup of tea and it should be ready by the time we finish it. So this is interesting.

Anyway, so about 5 or 10 minutes later, his secretary comes back in with three pieces of paper. Yeah. And I said, that's the most important thing for this patient to do.

So that is a new world that we're entering. So and I think that is a world that can really help to also direct focus for people using the bio regulators.

Not that the bio regulator is going to solve all your cardiovascular issues, but if we find out just to bring it back to the bio raiders a bit, if we find out that the cardiovascular system is is struggling in any way, like, you know, the heart could be functioning a little better, the blood vessels are not doing great.

Blood lipids are not where they need to be. In addition to all the other lifestyle therapeutics and whatnot, one could say that there'd be value in doing a cycle or a run of the heart, the blood vessel, and even the liver by a regulator.

In this case, it'd be worth mentioning it. Sorry, Nathalie, that may be worth mentioning at this point about dosing. Now, if the patient has a problem defined problem, I know you you might want to say to them, I'm talking capsules now and not injections.

Of course, you might want to say and I'm talking natural, not synthetic. You might want to say to that patient, stay on two capsules a day.

## Where to learn more and access the products

Okay. Then Russians refer to that as the intensive course. Okay. There is a super intensive course which is two captures twice a day, but that's pretty rare. Okay.

But there's the old 8020 rule, right? That the 80% of the people do well on this. And the 8020 rule suggests that you take two capsules a day for ten days a month.

So in other words, you do not take them every day. Okay. This is not necessary to do so. And if you wind that down to somebody who's healthy but wants to just have that edge, you can even get down to that that regimen, which is two capsules a day for ten days every three months.

Okay. So so now, because I always say that everything we do in health and medicine is a balance between cost and convenience, right? If it's too costly, most people are not going to do it.

If it's too inconvenient, most people are going to do it. So you find that happy medium somewhere. And and that's

the beauty of bio regulators. You actually don't have to take that much.

Yeah, yeah. No for sure. Although I'm also I also wonder in, in the case of an imbalance, if what I've done in the past with, with clients sometimes is I will have them do a 30 day kickstart and then and then depending on how they feel and what their lives are reflecting, we might we might continue for ten days a month Though I would agree with you that if you're kicking off for the first time, you probably want to do two capsules a day for a month, and then it's quite prudent again to take 1020 capsules over one month and doing that for a while.

And as you say, when you've got those measures that you're using, whatever they might be and you see that improvement, then you can start to back off if you so wish.

Yeah. And you know, sometimes it's bloodwork, but sometimes it can be something like for a guy who's getting up to go to the bathroom multiple times in the night, sometimes it's just we see.

And this is usually with the prostate and blood vessel. I think if we combine those two, yeah, we might see a man may suddenly realize he's having erections again.

Or, you know, as you say, they're not having to pee that often anymore or, or even physical strength. I mean, there is a muscle peptide, you know, maybe the legs are getting you out of the chair a lot easier now, you know, so there are various this doesn't have to be blood work.

Yeah. Correct. So so as we finish off because we'll close this off, maybe we can leave people with an understanding of should they be using one at a time, or is it a good idea to combine 2 or 3 at a time.

And then it's interesting. It's a challenge that's out. I mean, if you're not worried about cost, if that's not a, you know, because I try and be fair to patients and I say, you know, I, I normally recommend three because it's not costly.

It's not too inconvenient. But Bill and his patients, he categorizes them in three classes. And if I remember rightly and you might remember better than me, the low group is anybody taking less than five.

The the middle group is anybody taking between 5 and 10. And the high group is anyone taking more than ten. So yeah I think it's over a month. So yes.

Oh no that's true. That's true. Yeah. So not at a time. In the early days I heard some doctors, not professor and not the Russians, suggest that more than five could have a signaling problem.

However, I think that is conjecture. So the last thing that Professor Khavinson was working on before his untimely death was, he was working with the University of Tel Aviv, and they were growing strawberries in the desert, and they wanted to find methods.

And so he went over there. Now, I'm sorry, right at this moment in time, I don't remember the specific peptides, but they gave some bio regulators to the strawberries. No.

But they occur even in vegetables, in plants. They work. They're in plants, they're in animals. They're in us. Right. They are universal. And and what was interesting was in the studies published, and the strawberries grew 30% more fruit in the peptide group, which is fascinating because the number of between 30 and 40% in all cell environments is that it is a.

What did you used to call it? I used to call it the Cellular Biological Reserve. Right. The biological reserve. Thank you. So there's this 30 to 40% biological reserve in all cells.

That is fantastic. And so he was tapping into that 30 to 40% biological reserve. Yep. Yep. Fabulous. And who doesn't mind a bit. Strawberries and cream. Lovely.

Yeah exactly. Or a good eating mess. It mess I think is probably my favorite dessert of all time. And guys you can

Google that. It's just it's yummy. Just, just I'm just all over there.

Yeah. It's a sugar and cream and all the things, but it's really good once in a while. Tied after that one. Exactly, exactly. All right, so, Phil, why don't we leave our audience with how to learn more, where to find, get their hands on these natural peptides, which, by the way, I want to say are now shipping to the US from the US, which is fabulous.

Not that your team hasn't done a brilliant job of shipping out of the UK all these years, but now don't have to jump through flaming hoops anymore. So please share with the audience where they can.

Took us a long time. We have a brand. It's called Nature's Marvels. It is exactly what Khavinson that had. Same those same same excipients, same source everything, same dose, same everything. And.

But they're not made in Russia. They're made in the United Kingdom. Okay. And it is all to the usual standards you'd expect. And in fact, the facility we use is even FDA approved.

Funny enough. So and as you rightly said, we now have a depot in in Florida and it ships from Florida. I'm sure you'll put some links in your notes, but but if anybody goes to profound dash health, they will see how to buy all the usual credit cards.

And anybody who's a who's a health professional or a business owner contact us directly. The deals obviously. Yes, we are based in the UK in turn. But you know, it's the good news we speak English.

So, so that's that. There is a website called Nature's Marbles, which is just marbles. But can I also mention that there are four books that I would recommend to folks?

The first one is called is a more of a booklet really. It's a quick, easy read and that's called the peptide peptide Bio Regulator Revolution. It's a good book for the public to understand the background on this.

There is also a scientific book which I help to create which is called peptides in the Epigenetic Control of Aging. I did mention that earlier, and there is also another book which mentions peptides, amongst some other things called The Eyesight Saviors.

And of course that is focused on eyesight. Pretty obvious. And, and and by the way, we never got into the work of Doctor Svetlana Trofimova, but she so much.

And that's when you see the before and afters on that it speaks a thousand words. Right? And then a lovely lady, Doctor Robin Rose from Hawaii. She's written on peptides that is almost at the moment is the best clinicians guide to these to these.

So it's a kind of desk reference for anyone who really wants to get into this. So those books are available. There is a store for those. I mean you can find someone on Amazon, of course, but if you want to get them all in one place, there is a store called the Longevity Store.

So that is a place where you can buy those and other unusual health books, let's put it that way. Beautiful, beautiful. And I think that probably you'll have a code for people to get an initial offer from attending the summit.

My guess is it'll be doctor talks, but people please check the show notes. Just not sure we'll all got that right. The the. By the way, we have two other big websites.

One is anti-aging hyphen systems.com that is an information website that is over 20 years old. We just keep piling stuff on it or a more direct website where you can download rather nice PDFs is aging.

By the way, we use the American spelling without okay aging dash matters.com. That was our magazine format and all sorts of stories, but you will find the peptide stories there as well.

Of course. Beautiful Phil, as always, an absolute pleasure. Thank you so much for taking the time and we'll talk to you again soon. I look forward to it. Good luck with everything.

Thank you. You too.