Introduction to Dr. Bill Lawrence

Ladies and gentlemen, welcome back to the Bioregulator and Peptide Summit. Today we have an amazing guest. We have the man who's been working in bio regulator research really for the last.

What is it, ten years now doctor Bill Lawrence. Yes, yes. So doctor Bill Lawrence is a longevity researcher and bio gerontology scientist with a focus on translating complex research on bio regulators, biological aging, and epigenetic regulation into frameworks that are accessible to Western clinicians and researchers.

Enhancing understanding and collaboration. This man's not about the hype, my friends. This man's about what did the numbers say? And it is honestly quite apart from the sparkling personality and amazing dancing skills.

One of the many reasons why I truly love this guy. Now, Doctor Lawrence is closely associated with the scientific legacy of Vladimir, whose laboratory and clinical studies investigated organ specific peptide bio regulators that regulate gene expression, tissue repair, and age related functional decline.

So, in case you missed any of the other episodes where we explain this, now, you know what they do. Doctor Lawrence's role has centered on mechanistic interpretation, clinical synthesis, and biomarker anchored evaluation, particularly using epigenetic aging measures, telomere biology and systems levels, biomarkers.

He's presented and discussed peptide biotech extensively in physician facing and scientific forums, emphasizing measure based based outcomes, translational biology, and cautious differentiation among hypotheses, clinical observations, and published evidence.

His current work explores how peptide based interventions may interact with repair, signaling, stem cell niches, and age associated transcriptional drift.

Doctor Lawrence originally trained as an attorney, then as a scientist, and has recently completed an exhaustive investigation into genetic longevity claims.

So that's a topic we're going to explore in the podcast. But today we are going to give you guys a we're going to run a discussion really about the work that you do.

So welcome, Doctor Lawrence. It is a pleasure to have you back. It's my pleasure to be here. So for listeners who are new to your work, can you give us a very, very brief origin story about what drew you to the bio regulator peptide specifically, and what made you decide to run your own clinical trials rather than just study the Russian data or, you know, or even just use it for yourself, take the money and run, as it were.

And for people who want more details on your real origin story, we're going to direct them to the podcast. But just let's let people know what what really drew you to this area of study?

Okay. The short version is that the men in my family line all die early without going into all the detail. It's just a terrible record. They all die in their 50s and early 60s, including grandparents.

My own father had his first heart attack at 57, died at 64, and I was doing a lot of entrepreneurial things at that time. I had kind of left law, and I was building medical buildings and shopping centers and just a whole bunch of stuff worse creative tango in my life.

I'm a semi hermit and entrepreneurial ship, and being a hermit sort of don't fit well together. They don't go very well together. No, no. So anyway, with my father's death, I decided on going down the wrong track.

I'm making. I'm making lots and lots of money and my kids will appreciate it, but I won't, you know, based on the family history. And I probably was about 43 or 4 at that point.

I've only got maybe 20 more years. I'd better change the direction, so I did. I went back to school and got the PhD in nutritional science, started doing research for what I would call integrative or holistic physicians and clinics who wanted to have an objective, alternative understanding of some of the clinical studies that were being published by the pharmaceutical industry and so forth.

I did that for a while, and then I got very interested in my longevity and longevity generally. So I started searching. It was Google Translator that allowed me to be able to see clinical studies from all over the world.

Origin Story and Family Longevity Motivation

And I kept running into these clinical studies that Professor Kevin Sin was involved with out of Russia. And the results that they were getting using something called peptide bio regulators at that point were remarkable.

I mean, just a significant mortality reduction, which would translate into longevity. And so basically, I went to Russia at that point. Yeah. I mean, yeah.

What else would you eat? The man what else would you do exactly. You go meet the man himself. And yeah, I think from the first episode you basically I've, I've sometimes said, you know, when you threw himself at his feet and said, you must work with me, you've got to help me figure this out.

And probably it was more elegant than that. But he couldn't resist. You invest and and agreed to work with you? Yeah. I think what happened was he was so stunned because there's very little still true, very little communication between Russia, as I'll say in the US in terms of science world and so forth.

And he I think he was just so stunned that and I wouldn't call myself a scientist at that point. You know, I had the PhD, but that an American would be interested in anything that the Russians are doing.

So he just basically took office and I in and we became close and I basically studied under him, soaked up everything I could possibly get from him over, I guess about an 8 to 9 year period of time.

Yeah, yeah. What an opportunity. So fortunate. Yeah. What a beautiful thing. So you worked with him and the Saint Petersburg Institute of Bio Regulation and Gerontology.

Really? I dug up since 2015, in some way, shape or form. So how is so what has that collaboration looked like over the years and how has it shaped the research you've been gone on to do in the States?

Yeah. Good question. Professor Cameron was was primarily interested in developing new peptides. That was his passion. And but his focus was really on using the peptides for organ regeneration, which translated into people were having medical problems.

And if they were organ related, he was developing peptides that would actually at the cellular level of tissue level and so regenerate those organs. And in many cases that would, you know, be very helpful for at least improving if not resolving, you know, the medical conditions.

And so like the peptides for the kidney were wonderful in terms of people who had been diagnosed with kidney disease, even some people who were, you know, at late stage and the kidney peptides and a couple others that he would use would reverse that situation.

So that that was his mission. I guess I would say I came along with this idea that I want to live a long time. I want to make it past my ancestors and so forth.

So I proposed to him, you know, you've got these wonderful peptides, you've got this data in terms of mortality

reduction studies and so forth. And I said, but what do you think about longevity?

And he just wasn't terribly interested in that. He wanted to reduce mortality. And of course there's this overlap, you know when you talk about and mortality reduction.

So again, because he was really focused on organ regeneration and helping people medically, he basically said, you know, if you want to do something more specific to longevity, let's put together a clinical study.

So he helped me, supported me, taught me, you know, pretty much everything that I gleamed at that point. And we decided we would do a clinical study in America using American labs, using American participants and an American administrator myself.

And that's what we launched in about 2000, actually, we started talking about in 2015. We launched it in 2017. And so my job was to administer, you know, the clinical study for longevity.

Yeah. No it's fine. And, you know, the the interesting thing when we say longevity versus mortality, when he did his initial studies with the with the elderly people that he did that were, you know, kind of the ones that when you throw up the slides on a, on a board, people really pay attention to this.

And at the time I remember reading, look, he wasn't going to see the reason why researchers don't do longevity trials, if you will, on humans, is because they just take to flip and long like we live too long.

And so when he's so he kind of flipped it on his head and said, well, can we prevent people or can we, can we make it so that people don't die as soon?

And it was it's an easier line to draw in the sand than it is to see how long are these people going to live. So, you know, at the end of the day, the end result is the same.

If we can help people live longer, healthier lives, whether we say that we've reduced mortality or improved longevity, the endpoint is the same more, more or less.

Yeah. When we get into the the whole pipe program, I define longevity as being different than mortality reduction. I have a very specific criteria we need to be able to with proxies, telomeres and epigenetics.

We need to be able to add 20 years or more to their lifespan in order to consider a legitimate longevity intervention. And okay, we'll talk more about that in that slide.

Yeah. Okay. Good. Because I have a question about that. Cool. All right. So let's talk about you a little bit more because you're just the fascinating guy in the room here.

So you're now you've you've achieved the first objective. You've outlived any man in your, you know, in as long as you've looked back in your genealogical tree, let's say your tree, you're in your late 70s, but your telomere age is reportedly equivalent to that of a 23 year old.

So take take us on a little trip through your own personal data. What does your biological but what is your logical profile look like? But also really importantly, what about your health?

How does it look like today to compared to when you started? And how much of it do you think has to do with that change in lifestyle that you talked about because you went from being kind of, we'll call you a reluctant entrepreneur fighting against your own nature to do work that you felt was important, but that really wasn't feeding you to.

Telomere Testing and Personal Health Data

Now you're living a life that is very different, but at the same time, I think you're you're burning the candle definitely

heavily at one end, if not both ends, just because of the work that you do.

So maybe walk us through your your data a little bit just to just to repeat the question, how does your biological and health profile look like today compared to when you first started?

Okay, the interesting thing is we have actually data. It isn't just an impression, but we have the data. Yes. So I did my first telomere test in 2012 actually.

Yeah. And I knew just a little bit about telomeres. I knew they had something to do with cell replication. And so because in my PhD program, we touched on it, my first test with Specter Cell trying to guess now I was I think 64, 65, I can't remember.

And I was five years older telomere wise. In other words, my telomeres were equivalent to a male five years older than my chronological age. And this is before I even heard the term peptide bio regulators.

And so then two years later was when I was basically in Russia, had met professor and started on a peptide bio regulator program for general health, but specifically to see what I could do with those telomeres.

And I have a slide that we've used in you and I've used in the past that tracks the telomere process over many, many years. And so it was about a year and a half after I started on the peptides, particularly the pineal gland peptides that I first got to a point where my telomere age was younger than my chronological age.

So he had dropped by about six years at that point. And then I would retest every year and a half or two years later, and in various segments it would be ten years, the last ten years less, and so forth.

In terms of the telomere situation, until I think my last test was about a year or so ago, and there were two tests that came in over a period of four years that showed my telomere equivalent to a 23 year old.

So nice, huge extension of telomeres and what we know. And I talk about it, you know, we've talked about it in some prior podcasts is telomeres have a really wide ranging impact on people's health, because telomeres are what allows cell replication to occur in in a perfect manner.

That is, you know, we have several replication going on all the time in ourselves. And as we get older, as these telomeres on the end of our end caps deteriorate, that replication becomes negatively impacted to some degree.

And so to be able to then reverse that and add telomerase, we call it through the enzyme to the to the cells basically not perfectly, but certainly has a major impact on rejuvenating my entire body, my all my systems and so forth, because it's all the trillions of cells that are being employed.

So I was not the healthiest, but not the unhealthiest young attorney when I first started, before I went to Russia and so forth. You know, the long hours and then doing all neural stuff, I would get the common cold and strep throat and so forth.

And I was overweight probably by 10 or 15 pounds, and not just due to the peptides, but realizing that the peptides are wonderful. And we'll talk a little bit more about them.

But I had to clean up my whole act, had to leave the weight, had to start, you know, being a young attorney and you you would know this, you know, with your son being at a law firm, your workweek is 70 to 80 hours a week.

You don't have time to do anything other than eat, sleep and go and go back to the law firm. So yeah, I was not in great shape anyway. So then with the addition of the telomere extension since that time, I would say since since at least 2015, I haven't had a cold, haven't had the flu.

Yeah that's amazing. Healthy is going to be. Do you have an opinion on the one of the fears that is articulated quite often by people who are just learning about by regulators is they worry that by supporting telomeres, we could

somehow end up supporting cancer cells.

Do you have an opinion on that? I do, yes, because there's enough literature. It's sends, you know, discussed it and so forth. There's an association with cancer and extended telomeres.

And another telomerase gets that enzyme gets activated when people have cancer. But it's an association situation. The cancer does are the telomeres do not cause the cancer.

But what a person is diagnosed with cancer. There's this rapid replication of cells. And the telomerase enzyme gets activated at that point. But it doesn't call cancer.

So then would we say that for someone who is dealing with cancer that they know about that maybe the the pineal gland bio regulator would be something to stay away from until they've kind of gotten to a place where they get the kind of green light from the medical team.

Yeah. As to be very cautious about it. And careful we don't take anybody into the clinical study. If they've had a history of cancer during the prior five years, or certainly if they have a cancer diagnosis presently, we don't think it would be a problem, but we don't want to take the chance.

Yeah. Great. Thank you. It's just it's one of those things that just keeps coming up. And, you know, there's there's a couple of of fears in the peptide world.

And that's one of the ones that gets touted around. So thank you for answering that okay. So many people conflate peptide bio regulators with synthetic with not just synthetic but longer chain peptides like BPC 157 or TB 500.

Can you clearly distinguish for people what peptide bio regulators actually are, why they're different, and why that distinction really matters? When you're doing work in the longevity space, like you or the work that you're doing in the longevity space.

Sure. I call them synthetic or therapeutic peptides. They've been around, you know, they're the hot item, of course, here in the United States these days.

They've been around for a long, long time. I mean, and people don't realize that, for instance, insulin is a peptide. Yeah. Yeah. I mean, long history.

Anyway, you see the two of them as being complementary. And I'll define that in a moment. The synthetic peptides are wonderful for short term acute issues like wound healing.

You know, BPC 157 ligament healing and so forth, muscle healing, etc.. The TB 500, the mosses, you know, all all of those are wonderful. I use started using them about six months ago.

Their commentary in that they are focused on a specific, you know, issue. So for instance, there are, you know, peptides for mitochondrial regeneration.

And so they're great to have that in your tool bag. The peptide and bio regulators are completely different in that they don't fix things in the short term.

It takes a long time for a peptide bio regulator to to become effective. And what the reason is that the bio regulators are going in at the cellular level and regenerating through cell signaling, regenerating tissues, which has the benefit of regenerating entire organs and eventually the whole system and the human body system.

So it's a long process. And the key is the I, I would say that the synthetic peptides, I don't want to call them medicine, but insulin of course, is a medicine is a medicine, but they're in the field of fixing a problem that a person has medically okay.

Health. Yeah. Like right now. And the other hand, the peptide bio regulators are a long term process. We know from the clinical studies that did you know he had some studies over six years long, nine years long, 12 years long with the old person study.

We know from the work I've been doing the last ten years or so that it takes 3 or 4 years in most cases to achieve the goals that we set, Telenor wise and epigenetics, and we'll get into that.

But even just to improve significantly, like probably the one of the quickest bio regulators that we see with benefits is the thyroid. I'm not a doctor and so I have to be careful.

But we have, I don't know, 80 or 90 doctors in our clinical study. I think there's over 150 people now and they use them for their patients. And of course, study.

And the feedback that I get from labs that the doctors sometimes send me or talk to me about the last me to prepare a thyroid regeneration protocol.

Cancer Risk, Safety, and Peptide Distinctions

And we see generally the labs improving in about six months, which is really a fast turnaround for peptide bioreactors, because what we're doing is we're regenerating, you know, at a cellular level.

But yeah, it's a long process and it's doing something different. It's remodeling the system by, you know, fixing the plumbing and fixing, you know, the HVAC and fixing, you know, the windows and, you know, paving the repaving the driveway and all that stuff.

Yeah, yeah. All those renos we love to do. Where's the synthetics are more like, you know, putting a new coat of paint on it. You know, it'll look nice and it is, you know, good and so forth.

But yeah. Yeah. So when you talked about the, the, the thyroid numbers improving over over six months, and one thing I'd like to highlight for the audience is quite often the thyroid by regulator is being used adjacent to all the other tools that the medical doctor is going to be applying to the problem.

Right. So whether they're changing their diet to get rid of certain anti nutrients or they're reducing inflammation in the body or they're addressing lifestyle like I, I've seen this myself in my membership community, and I do think it's important for people to, to know that we're not just popping a couple of capsules a day and calling it a day.

We're doing all that other work around it. But it's it's the it's the combination of the support of actions that you're taking both from a lifestyle and even, you know, maybe you have a selenium deficiency or iodine, whatever the case may be.

So addressing deficiencies and then adding the bio regulator on top that's doing that infrastructure upgrade, if you will, that allows for the for these numbers to shift in a meaningful way.

But you said over six after six months, are you are you able to tell us with these doctors, are they using the thyroid bio regulator, let's say for the full six months, or are they pulsing it over the six months?

I'm sure it varies from case to case, but can you again help people to understand, is this just a one and done 30 day protocol, or maybe do they have is it beneficial to kind of repeat shorter cycles within that period of time?

Can you help people to get a little insight on that? Certainly it depends on a degree of safety were it issues or kidney issues and so forth. The general program is you've used the word pulsing cabin and determined it was very important to do this cycling of this cabin or a pulsing thing, because he did not want to have the body become reliant on the constant in stream or intake of these peptide bio regulators, because if that was the case, then the body's natural organ functionality and so forth would decline over a period of time.

Be dependent on this constant input of peptide, you know, which are signal signaling molecules. And so his program basically different than mine in that his program was two capsules a day of a particular peptide for ten days of the month and then off for 20 days and maybe recycle, maybe do nothing for a couple of months and then started again, very conservative kind of thing.

And he was getting very good results with that. My approach has been a little, well, let's take the person. No, that's got a serious kidney thyroid situation.

My approach is a little more aggressive. I would take someone like I shouldn't say I, I would recommend to the doctor okay. Because I interact individually with okay.

I would say to the doctor, let's put them on a pretty aggressive dose, two capsules a day for 30 days, maybe in 60 days, and then drop it down to two capsules for 20 days for a couple of months, and then drop it to the traditional two capsules a day for ten days.

I do not think it's necessary to have large gaps, like a cabin set would. Maybe use a thyroid peptide three times in the course of the year. Yeah, I'm much more aggressive, and the reason for that is that I can't hurt them.

Yeah. The their natural derive from food. They're just a little amino acid strings and so forth. And so there are no adverse events. There's no side effects whatsoever.

So my approach that I talked with the doctors about is since we can't hurt this person overdosing, and we can only get benefits from this, at least in the short term, because eventually we need to get on to a cycling.

Let's be aggressive. So that's basically what we do when we set up the programs. But we also for the clinical studies, we actually do some of that rotation that cabin in has in his history.

Because, for instance, I might have a person on, say, 4 or 5 different peptides for the first three months. And unless they have a medical problem, we're going to be on the ten days, two caps a day for those people.

But then the next three month period of time, we're going to shuffle three other different because there's 21 of them available. We'll use three other peptides for that period of time.

And then the following three months, a whole, you know, a different group of them. So in many ways we're still on Cabin Suns cycling program. But the difference is that when he was doing those studies, he only had a couple of peptides because he hadn't developed many of the others, the pineal and the thymus, peptides or the old people studies.

I have 21 of them that I can use. Yeah, I have a whole toolkit. Yeah. Really exciting. And so what we do with a person that comes into the clinical study and these are doctors mostly, is we set up a 12 month protocol for them rotating through all of the peptides.

And the result of that is on the whole we get we use three everybody every three months. Let's say we use three boxes or we use the thymus peptide three times during the year, which is what I was doing.

Yeah. Yeah. No that's fantastic. Thank you. So you answered one of my other questions. Basically, you know, I was going to ask why all 21. And that is essentially you're up.

I mean why would you only upgrade part of the system if you're going to upgrade your factory, you may as well clean all the machinery, upgrade all the components so that you get efficient production of all the things that you need.

So I have another question for you. In the old people's study, Kevin Sin only used the peptides that he did have for two years and then followed these people for in the one study 12 years, and then in the next study six years.

And even then he only administered them a couple of times a year. In those two years, when you're working with people now and you're doing this whole system overhaul, how long, how many, how long do you think people need to be cycling through the peptides?

And then should they take a break for a couple of years and then come back, or are we watching labs and the, you know, any testing results, which we'll talk about later, I guess, and then revisiting different bio regulators when we start to see signs that function is declining in any way.

The way that I approach it is that we set goals for people that, you know, as you said in the early part of this, longevity standards are difficult because they're long.

Okay. Yeah. Yeah. So we have to do it with proxies and the proxies that we use. And there are half a dozen good proxies out there. But the two that we cabins and I agreed upon was the telomeres and epigenetics, because telomere testing at that time was readily available.

Epigenetics came along pretty much about to 20 2020 I guess is when it's around there. Yeah. Yeah. So what we do is we set goals. So let's say a person who is 60 years old, I suggest you then that we can lengthen their telomeres and get them equivalent to a 35 year old.

So that becomes the goal. And we actually set those goals on the documentation on the protocols. And with the epigenetics we'll get into how we measure it.

But the epigenetics is is a risk factor. In other words, if you're older epigenetic than your chronological age by a certain amount, you have an increased all cause mortality risk.

And for that, the goal becomes to get people down about 4 or 5 years below their chronological age, because at that point they drop into a 35 to 50% reduced all cause mortality risk compared to their same age peer.

So those are the goals. And so to answer your question, I'm being a little bit long winded. What we have discovered is it takes about a minimum of three years to get people close to or at those goals, sometimes just as on the individual.

And by the way, we don't tell people or ask people to change anything in their life. Yes, yes, that is a really important. I have no idea what the diet is, but basically because most of these people are autistic or holistic integrative physicians, their diet is good.

You know, they're doing that. Work is being done for sure. Yeah. So takes us 3 or 4 years and we get to that point most of the time. I would say over 90% of the time we get to really close to those goals or achieve those goals.

Then cabins and and I, being a little naive at the time, thought we would say goodbye. We did it, you know, you're done. Yeah. We're done. Come back and see us in five years.

The problem? Nobody leaves. We get there and they say, yeah, but I don't want to stop.

Pulsing Protocols and Long-Term Peptide Cycling

So we had to create a maintenance program, and we have probably 40 of the 150 on a maintenance program where we send them two different peptides a month for ten days.

You know, and at this point, I think in all these years, I think we've only had one person just kind of drop out. And he said, he'll come back to us in five years, which is fine.

Yeah. Yeah. So you're kind of like doing a little tweaking, tweak mints along the way, just making sure that things stay primed. It makes total sense to me. All right.

So one of the one of the I feel like one of the things, one of the thoughts you've advanced here, that wasn't always the language that was used before is you described this as a DNA repair system restoration rather than anti-aging.

And this is not just semantics. Can you. Can you explain that a little bit? What does restoring the DNA repair system really mean? And why is it more accurate than saying you're reversing aging?

Yeah, it's actually nothing. The two are totally different. Yeah. What we have the DNA repair systems. I am just always overwhelmed at the complexity and the wonderment of human bodies and how we operate and so forth.

Within ourselves, cells replicate all the time. Okay. It's called the Hayflick limit is the total number that they can. And by the way, cabins and published a clinical study where he was able to extend the Hayflick limit, which is been the Holy grail for 50, 60 years.

He was able to extend the Hayflick limit, the number of replications by 40%. Yeah. Anyway, so what happens at the cell level is that cells are, you know, replicating and so forth.

And in that process, the course that they're replicating and they split, you know, into what they call daughter daughter cells and so forth. They split.

And the idea is that these new cells are a perfect reproduction of the cells that was there before. Okay. And what occurs, though, is that there are what we call assaults, mutations, whatever you want to call them.

When that cells replicating it doesn't always replicate 100% perfectly. There are I exposure, stress, bad food, toxic environment. There's just a whole long list of things that can interfere with that replication.

So think of you've got a sort of an assembly line here of cells being replicated 99.9% of the time. That cell is going to replicate just fine. It becomes a new, perfect functioning cell.

Sometimes it doesn't happen. In fact, in this DNA repair system, it is like being on an assembly line. And at one point there's what's called in scientific literature, checkpoint.

There is a a part of this process, this DNA repair system that looks at the in a sense. I'm oversimplifying, but it looks at this new cell for a moment.

A nanosecond says there's something wrong with that and kick it out. And there are options. They don't just trash it. They say, send it over here, the repair shop.

Okay, guys will take a look at it and decide if it can be repaired or if it's just too, too much gone, in which case we'll destroy it. So that's the checkpoint that goes on in the body, which is incredible.

That happens. The DNA repair system is the repair shop, the repair maintenance department that goes on in our system, and it works perfectly. When we're young, over a period of time, it becomes less perfectionist and less functional.

And as we then see aging accelerated organ damage, because, you know, if you're like a foundation, the bricks in a foundation, if some of them are cracking and so forth, that has an impact on the structure.

And so what happens is that the peptides can come in and actually fix the DNA repair system. It could come into that maintenance department and say, yeah, you guys need to go get some training, and we need some new tools over here.

And, you know, obviously simplifying it, but the pair system can be repaired. And Kevin San published several studies where he talks about he doesn't use repair, but that's what he was alluding to.

So the peptides can go in and fix the DNA repair system itself. Numbers tune it back up to what it was like when we

were born. Yeah, that is amazing kind of thing, because then cell replication is going to continue to go at a high quality level because the maintenance department has been fixed, you might say.

And most humans, it doesn't get fixed. It just deteriorates until we're old. Yeah. No, that's why I don't I don't talk about in terms of anti-aging. I talk about in terms of cellular integrity when cell replicated.

Well, and I also think to avoid the word anti-aging respects the philosophy of Professor Who. And he talks about extending the lifespan and health span of organisms to their natural to their natural endpoint.

So he wasn't talking about people living to 200 or 180 years old. He was talking about, you know, if human lifespan is, let's pin it at, let's say, peg it at 120 years.

That would be the maximum lifespan that we could expect. Then he he's saying, you know, most people are leaving, let's say to 80 or into their 80s. What can we do to extend that, give them that extra, you know, 20 to 40 years, let's say, but do it in a way that they actually live a life worth living as opposed to just keeping them alive, which we all know medicine can do.

Medicine can keep people alive way past a point where maybe we'd want to be alive just because of what our quality of life might look like. The goal here really is that, you know, Bill, invest, continue ballroom dancing well into their 80s and 90s and beyond.

And the rest of us just keep doing the things we enjoy and contributing and enjoying our time on this earth well into those decades. Yeah, actually, Kevin talks about the humans should be able to survive fairly and be healthy at 110 to 120.

He talks about and some of his articles on self-worth and but a big part of that there's two components going on. You've got to fix the DNA. You got to fix the maintenance department.

Okay. Yeah, the maintenance department, if it is deteriorating over time, that means the cells are going to be vulnerable and so forth. At the same time, you use the peptide biograph not not only to redo the maintenance department, but you use them to fix the organs where cells didn't replicate as well.

When there's been some external damage, you know, a wound or whatever that you know. So you use the peptides for that as well. The combination of those two even ruling on.

I'm not saying eliminate, but even ruling out considerations of how healthy your lifestyle is and so forth, which really supports that cabins and strongly believes 120.

I expect this and I expect to be alive of 120. And as we've talked about in prior podcast, the Crossing the Bridge concept. Yeah, yeah, I love that concept.

Yeah. And we'll just mention it quickly that there's things on the drawing board. In fact, I talk a lot about this in the longevity Hope hype PowerPoints.

There are things on the drawing board that within 510 years are going to. I mean, dementia probably will disappear. Cardio disease, diabetes and all those things will probably disappear, particularly when you add AI into the picture.

You got to stay as healthy as it can be in order to get over this, say next ten years and at that point is 140 feasible? Maybe. Yeah. Yeah, maybe. I mean, with AI, who knows what can happen?

Yeah. Well, and it's about regenerative medicine and where it's going. Right. So now we're going to be, you know, if we can refresh, renew regenerate joints that are wearing down.

And to your point, beating those chronic diseases that are the things that ultimately take us down. But I think where the bio regulators come in is if they can keep that immune system balanced and functioning, that puts us in a much

better position as well.

Like it's all of these things, you know, those would be that that immune bio regulator that sometimes I don't know that it gets its day, it gets enough attention because everybody's so focused on the pineal gland.

But it's like, yeah, pineal gland is great, but if your immune system goes wonky, it doesn't really matter. So when the protocols we create by Neil Gland and the thymus peptides are used more consistently throughout the year.

You know, I talked about those cycles every three months. Almost always the pineal and the thymus peptides are built into I would say probably all four of those three month cycles.

It's that important. Yeah. Yeah. No. When I was I, when I did my Year by Regulators program with my people, I think everybody was getting it once a quarter and especially over a certain age.

Right. Like once you're north of I don't know if we want to I mean, we're I don't know where you peg your number. For me, it's definitely over 60, but even over 50, if somebody's living a very stressful, busy, crazy life, every quarter is not inappropriate.

Absolutely. Yeah, absolutely. Yeah. Okay. So we we talked a lot about the telomere study where, you know, I think you mentioned earlier that over 90% of the people that you worked with achieved those goals of telomere lengthening.

Is that right? Or did we not say that or am I making that up? Yeah. No, you're not making it up. But it's not exactly the attorney brain kicking in and the science.

Yeah, I know I listen, I'm always really careful with you because I, the attorney brain is a very precise brain. It's kind of like the engineer brain.

DNA Repair, Cellular Integrity, and Aging

Only difference what we have been able to achieve, percentage wise is pretty much I would I'd have to go back and statistically. But I would say 95% or more, 95 to 98% of the people experience telomerase activation and telomere lengthening.

Okay. Very, very few do not recognize something. Now, we talked about goals in terms of what percentage reached the goals okay. Never sat down and and figured it out as a percentage.

It is certainly a majority of the people. It's probably somewhere around 75 to 85% of the people hit the goals. So that 65 year old person I mentioned earlier, we set the telomere goal at 35, 75, 80% of the people hit that or get real close to it.

And then there's a small percentage that don't, but they have show improvement. I don't think there's we've never had a person I want to make sure this is true.

We've never had a person whose telomeres go the wrong way, go the wrong age. Yeah, yeah, yeah. Because I know that we've had some that just didn't get much.

And yeah, we talk about this in some other podcast, what we believe based on science cabinets, sense work and others is if people are under huge amounts of stress, it does a little number on the telomeres.

Yeah, yeah, yeah. So folks this is your cue. If you're not learning, if you're not accessing tools to manage that stress, that is probably one of the key features that accelerates aging.

I mean, obviously there's others, but that's the one that's probably the most under our control. Not that you're going to reduce stress, but that you're going to manage.

You're going to help your body to manage it better. And that's those are that's a very important distinction to make. So okay, we're we're of course we're running long because it's us.

And because this topic is so fascinating. Before we run completely out of time, I wanted to talk a little bit about the epigenetic methylation study, because that is a very other that's another very key component of the work that you do with people.

And in general, you talked about earlier that you were showing a five year reduction in epigenetic age, or that was the goal that you were establishing for most people.

And this really correlates. Yeah. Well, okay. About a five year reduction. What we need is them to be five years below their chronological age, because some people come in and we are older baseline tests, they're like ten years older epigenetic right than their chronological age.

So yeah right. So it's five years younger than the chronological age. So for some people they're starting at baseline. For other people they're starting way behind the eight ball.

So it's going to take a little longer to get there. So how are you measuring epigenetic age these days. Are you using the Horvath clock that I need and pace.

Is there other like how are you interpreting that mortality correlation okay. We're using harvest clock for the mortality reduction statistics and the goals that we he said he's the one that determined for instance, if you're seven years old or epigenetic you have about an 80% all cause mortality risk.

Okay, this is and when I say horrible, Horvitz and 65 other scientists that work with him at UCLA and other institutions came up with this data. On the other hand, if you're five years younger than your chronological, you have about a 45 to 50% reduced all cause mortality risk compared to your peer.

So that's the that's the data that we use to create the protocol for them. And so we are able to test the testing originally in 20 2020. I guess it would just give us an age to diagnostic, you know.

Yeah. Ryan. And and and so forth were the pioneers in that area for commercially I mean epigenetics going on and institutions. Oh yeah. So they made it commercially.

And so they were able to give us just an epigenetic age. Okay. And we then factored that in. Then about a year later they broke it down. And they could give us the epigenetic age of the immune system separately from the overall, which was really wonderful thing.

And oh yeah, there's a couple years later they were able to break it down further and I think they had 13. I think they called the Symphony Age. They do.

Yeah. It goes by system. It's it's actually fascinating. Yes it is. They have I think 13 organs and systems that they can give us an epigenetic age for.

And of course what's wonderful about that is that when I'm looking at that data and I'm designing a protocol for the people we see, the one, the systems and organs that are accelerated.

So we build into the peptide program peptides to address that. Now since time we've added another layout called Generation Lab and they're doing something very similar.

That's just a bit different technology that they use. And so I oftentimes do both tests for people. They have actually 19 systems that they are able to report on.

Now all of that is very separate from the what we call the pace of aging, that you would know pace of aging is able to tell us how many years of chronologically we age one year every 12 months.

Okay. And what they're able to do with the done in pace of aging is they can figure out, or are we in a situation where the person has accelerated aging, their their aging, say, 5% faster than their chronological aging or slower?

A wonderful thing. In fact, I actually look at the rate of aging as the most important thing. Yeah. And so the goal there is to be able to slow people's pace of aging, which sounds sci fi, but it's real.

I mean, it's fascinating. Yeah. This stuff came out of Harvard and New York, you know, and so forth. The institutions. So it's it's real. And that's the first thing I look at.

And so the goal that we set is I want people to have at least a 7% slower pace of aging than their chronological age. And we achieve that all the time.

Mine right now is 21% slower than my chronological -70 0.79. Yeah, yeah, I'm I'm not far. I think I'm around there as well. Wonderful. Congratulations.

We definitely want to be we want to be burning through the clock less slower than the clock is going moving. And I consider I mean the others are very important.

The telomeres are important, you know, and the grief of the systems. But to be able to slow our biological aging, you know, take the foot off the accelerator and kind of coast along at 20% slower than, you know, the chronological.

Unbelievable. That's a real focus for me. So yeah. Anyway, we use we use all of that. Perfect I love that. So, you know, I'm going to wrap this up and we're going to leave a lot of questions on the table.

But but for folks we have a bunch of there are a number of podcasts that Doctor Lawrence and I have recorded in the past. We're going to be recording another one for the podcast down the road, so I think we've covered some good ground here.

But one of the things I wanted to address is that, you know, we have a lot of people listening to this podcast, this summit, some of them will be physicians who I'm sure you'll hear from, and some of them will be the general public, some of whom you may also hear from.

Or they'll come to me asking to get in touch with you, because that's generally how we run this. But do you think that this the protocols that we've outlined here, which are not very specific, but let's say somebody listening is a layperson, they're like, oh my God, I'm jumping in.

I'm doing this. Do you think that people can do this on their own? Or do you feel that it requires medical supervision? Are there any risks or contraindications you feel people should be aware of if they're going to, if they're going to DIY this themselves, other than a little hit to the pocketbook.

And these peptides are not all that expensive really, other than those, you know, a bit of a financial investment.

Epigenetic Age, Pace of Aging, and Study Results

There are no adverse. You can't hurt yourself because again, the basis for these are animal source, either calves or pigs and so forth. They've been around since 1970s with Kevin.

Yeah, they've been around for a long time. Several million people have been. And one thing I want to add before I finish this is, yeah, a common criticism of the Russian peptides is that no one outside of Russia has duplicated the studies.

That's not true at all. Yeah. And we're going to talk about it later in the other, Kevin said worked with other countries health departments, you might say, or academies and so forth, including the National Institute of Health in America. He. Yeah.

You know, working with them, the Belgium, Italy, Germany, etc.. And the other criticism is that there aren't any published clinical studies, you know, outside of Russia.

That also is incorrect in the program we're going to do later, I list the number of international publications, and the most recent one on telomeres is last year out of the Netherlands.

Yeah, yeah. Anyway, back to your question. I think a person could because there's no downside. Okay. I think a person could use the probably for, for say a male, there's probably about 20 of the peptides for same for for women because you know, the metals aren't going to use the ovaries and so forth or the testing.

Yeah. You could just take those and rotate through the as I said earlier, the foundational ones are the penal gland and the thymus. Those should be every probably at least every three months those.

But take and lay out a protocol yourself so your budget cats can absorb, say four different peptides a month. Just scatter those out, you know, get the muscle peptide, the kidney peptide, the brain peptide, the vision peptide, and create a protocol for yourself.

And then just by the peptides I think you have a source. Yeah, yeah, yeah. As a matter of fact, I think I believe profound health. As of next week, we'll be shipping out of the US instead of out of the UK.

So I have a we'll be hearing from them in the summit too. It's very exciting next week from fill out of Florida. Yeah. There you go there. You can't hurt yourself.

And so just create your own program. Get Ahold of Naftali and she'll help you buy them and just start using it. I mean, there's new bouncer. Yeah, yeah, unless unless I'm just going to go back to the beginning.

If you have active cancer or a history of cancer in the last few years there, you're going to need to exert caution. And I would definitely work with a professional at that point just because just because we don't want to take any chances.

All right. One more. There are the natural bio regulators. And then there are synthetic forms of bio. Do you? Maybe we can help people understand the differences between the two.

And I know that originally you really mostly use the natural. And since then you've now incorporated some of the synthetic bio regulators like the Apatow on spray or whatever case may be.

Can you just help orient people in this area a little bit before we shut this down? Okay. I would recommend that people stay with the natural peptides to start with the first year or so.

Okay. The spread with, you know, the 20 plus or 21 plus, it will take care of all the major organs and systems if you have the synthetic ones are helpful because they're faster acting.

Okay. If you can identify, I think there's less than a dozen. I think at this point of the synthetics floating around, depending on, you know, if it'll on in the spray and so forth.

You know, if you have a particular health issue, I would consider using the synthetics. I carry a small inventory because the doctors like them. We don't we don't use them in the clinical study because our whole study was set up on the others, on the natural.

Yeah. So okay, now there's a lot of noise in the longevity space. Right now we're going to touch. There's going to there's another podcast coming you guys.

So you're going to have to listen to that to get the full answer to this question. But you know this in the longevity space right now we talk about synthetics.

We talk about GLP. We talk about NAD precursors. Yamanaka factor reprogram. Where do you where would you put the bio regulator peptides in the hierarchy of interventions that you'd recommend.

And do you see them working synergistically with some of these other protocols when they're appropriate? That's interesting. You raise that question because in the PowerPoint that we're going to do later, it's in there is what I do do is I go through the the hope kinds of supplements and nutraceuticals and stuff that's out there.

I go through the hype idea because there's a lot of hype out there. And then I go to a selection of what I call science. There are eight different interventions that have longevity benefits to meet my criteria.

My criteria is different than a lot of the talking people on these shows talk about. And I talk yeah, they're the peptide. Bio regulators are the most powerful longevity in terms of my criteria, most longevity, most potent longevity item on the planet.

At the moment with human studies, there are experimental things that we have high hopes for, like NAD and all these other things. I think that the GLP are going to be really, really a game changer, but we don't.

The dividing line for me as a scientist is and I talk about this in this thing, most of what you hear on YouTube about this wonderful thing for longevity and so forth, and we have science to support it.

The science is animal based. Okay, okay. Because only 5%, maybe 7% at best. Do animal study results transfer to human being? Yeah, 5%. So you can't rely on yeah there's there's studies and so forth and so forth.

When you narrow it down non it can't be animal studies and it has to hit this criteria. There's only about eight things that really create longevity. And the peptide bio regulators at the moment are the leading.

And it's not just because I'm involved with them I'm involved with them because I went. But that's why you're involved with running water. So I could be around, you know, play with my, my great grandkids.

So that's right. Yeah. That's right. Okay. All right. I'm just deciding how we're going to close this off. All right. If there's one thing you wish that the conventional medical establishment understood about bio regulator peptides that it currently does not, what would it be?

It would be for them, the conventional medical world to take the blinders off, take take away the pharmaceutical funding and all that stuff that goes on.

And if they were to simply look at the science and say, here's what's available and what's helpful for my patients and so forth.

DIY Use, Natural vs Synthetic Peptides, and Closing Thoughts

They would incorporate the peptide bio regulators into their practices, especially given the fact that almost all pharmaceutical drugs have some degree of adverse side effects.

They would also race the synthetic peptides because on the whole, they're very safe. We don't have a lot of data, but on the whole but they do wonderful things.

They would open up their practice, use synthetics, use peptide bioreactors, use their traditional medical things and so forth, because they would be the service that they would be offering.

And I'm starting to see this. You know, there are doctors, MDS that are in our program, of course, that have opened up there. You know, they've added the peptides to their program, they've added the synthetics and so forth.

Can you imagine going in and seeing a doctor who has all those tools available? Yeah, yeah, that's what I say I love that. What's the thing that surprised you the most after nearly a decade of running this study?

What's the thing that you didn't anticipate seeing when you started? I think it probably would be what I said earlier. I thought I'd be with these people for 3 or 4 years.

Right. They won't go home. I mean, I have a list of fortunately, I got Lori to to respond, but I've got like 20 emails this morning from people that have been with me for 8 or 10 years.

Yeah. That's amazing, I love it. It's it's the sign of, of doing great work. So if somebody wanted to and, you know, I'll put it out there. If anybody does want to think about explore working with Doctor Lawrence and now his new superhuman assistant, Lori, you can reach out to me directly, and there's a process in place, and I can help you to navigate that.

In the meantime, I think I'm going to now let you go. We've now gone 50% over the time we were supposed to go. So I'm going to thank you so much, Doctor Lawrence, for your time.

As always. You're so generous with it and your wisdom. Is there anything else you'd like to share with the audience before we say goodbye? Yeah. There is.

Every morning when I wake up, I recite to myself five things that I'm grateful for, and being alive is right at the top there. That's my wonderful wife.

Is there? The work that I do, it sets for me the tone for the day. Because some days when I think is that I'm not excited about doing it gives me a chance to kind of put it in the right perspective.

That's what I finish with. Be grateful that we just woke up this morning. Beautiful, beautiful. Thank you. Okay. Thank you so much as always a pleasure.

It is my pleasure.