Follow Up To Dr. Bill Lawrence Episode: Bioregulators Explained With Nat Niddam l Episode #415 Transcript

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Introduction to the audience Q&A episode

Hi, I'm Natalie Nidam, your host. Welcome back, everybody. This episode is driven entirely by your questions. After my conversation with Dr. Bill Lawrence, the response was huge.

So I brought in my producer, Aaron Ryan, to help me unpack as many of them as we could in one episode with the promise of follow-up episodes if you love this and you want us to do more.

Now, we're clarifying questions in this episode about, do bioregulators get digestive when you eat them? organ versus system signaling, the key differences between longer chain peptides and bioregulators, and much, much more like lots of the questions.

We got to as many of questions as we could in this one episode. all in one audience-powered Q&A. Now, this episode is brought to you by Oslo Sleepbuds Earbuds, Vitali Skincare, and Oracle by Wizard Sciences, all with very special offers just for you, the listeners.

All you got to do to get a hold of them is check out the show notes below for details. Enjoy the episode. Welcome back, everybody. We have a really special episode today.

By we, I mean me and one of the magic team members that works behind the scenes to create this podcast and make it as amazing as it is. And not that I'm throwing myself flowers.

I am throwing her flowers because Erin Ryan is my producer. She was actually my first producer way back in the day. Then we kind of went off in separate directions.

And then she came back to me, which was like the best day ever. Anyway, Erin Ryan is an exceptionally talented producer. She has deep knowledge actually in the health space.

And she's been at this for a really long time, worked on one of the biggest shows in business. But the important part is she come back me and which I was so excited.

So we once did what was supposed to be a solo episode as a right way back in a day. First of all, welcome Erin and thank you for agreeing to do this. Of course.

So now you can hear her voice and she has a perfect voice for this. So it's amazing. We did this way back in the day when she was first my producer. And basically, instead of having me just chat about this topic by myself, we had Erin throw questions at me and it worked really, really well.

For today's topic, We thought that format would really be much better for you guys as well, So basically, I released a podcast with Dr. Bill Lawrence about bioregulators.

When was it, Erin? Back in December, right? Yes. It was before Christmas. And on YouTube, which is not my main channel, folks, it's probably at almost 200,000 downloads.

Which may not be big by big people standards, but by my people's standards that's a lot. And the comments are still coming in fast and furious.

Natural vs synthetic bioregulators

So we decided, let's go through the comment. There were tons and tons of questions, questions that seemed to be and asked over and over again. And I thought, you know, I don't, Bill Lawrence is a tough guy to get.

So what I would do is give you some answers as best as I can. surely my doctor would know about it or surely it would be a bigger deal in North America, right?

And skepticism is a good thing, but I can tell you. In my world, like we have over three decades of research here. So I feel comfortable. I've also witnessed in my membership community and working with clients and now with Dr.

Bill Lawrence's work and other doctors now, lots of doctors in the functional medicine space are bringing the bioregulators in as a tool. The other thing that Erin wanted me to say, and I'm now dominating the conversation, you guys.

So at some point I am going to stop talking and let Erin talk. But I just wanted to position the episode a little bit. This is obviously for educational purposes only.

We're not giving medical advice and bioregulators are what I would refer to as your best tool in your tool belt. They can work on their own to a degree, but they also work really well with almost everything else.

And we'll talk a little bit about, and maybe Erin, you'll fire me a couple of questions about that, like around safety, around how they really work, because it is the hallmark of why I think so many physicians, practitioners in the functional space are learning about them and weaving them into their protocols.

So Erin, I'm going to let you fire a couple of questions at me now because otherwise I am just going keep going and you're just gonna be the pretty face on video.

No, sure. Yeah, that sounds good. So what I did was I took many, many of the comments. Like she said, there's still comments rolling in. I think there is a few hundred at this point.

We didn't want to sit there and answer a hundred. With the help of AI, we threw many questions into AI and got some of themes. Your questions may not be your question word for word, but these themes will certainly answer many of your questions.

And Nat will mention it towards the end, but there were so many and so different themes of questions that we may even do a part two if you seem to like this episode.

So holler at Nat, give us some feedback because there are some really you know, deep dive topics into more serious questions that people had about health that we may be able to touch on just a little bit.

So what I, the first theme that I was seeing with audience confusion was The difference between synthetic peptides and natural bioregulators. So this is something that so many of you ask about and even, you know, we have a partner called Nature's Marvels and they are through Profound Health.

And even on that site, You can find either natural or synthetic biiregulator. Matt, can you help clear that up? What's the difference? between Synthetic Peptides, and Natural Biore regulators?

Natural bioregulators are an extract from actual tissue gland organs of animals. So it is an animal product. It's very refined. There's no animal protein left.

A lot of bi regulators are derived from pork, from porcine, if you're allergic to pork. If there's a meat that's allergenic, I think pork is one of the top ones.

you wouldn't have an allergic reaction to it. So none of the protein from the pork is left in there. Now there's definitely groups of people in the world that won't touch pork for a number of other reasons.

That's a different story. But regardless, whether it's derived from porcine, bovine, or even from sheep, there are some bioregulators derived There's none of the animal protein left.

All that's in that capsule are the short chain, so the two to four amino acid bioregulator chain. But also there are supporting actors around it. So you have single amino acids.

You've got other small proteins. It's more refined, if you will, than a glandular. But so it's you're not getting all the stuff that you get in the glandular.

Like for example, in a thyroid glandula, you would get T3, T4, or you'd get all kinds of other actives in there. So you are not the activists, but you were getting those signaling molecules that are going to enable the regeneration of the tissue or gland at an epigenetic level.

The synthetic, so when we talk synthetics, I'm going distinguish between the long chain peptides and the bioregulator synthetic.

How bioregulators survive digestion

So the bioregulator synthetic is when, and this is of the 21 bi oregulators, all but five are available as a synthetic form. And this where scientists have identified the main amino acid chain.

So with epitalon, I think it's AEDG. Those are the initials of amino acids that are in that chain and they're able to synthesize it in a lab in the exact configuration that it occurs in nature.

So, it's bioidentical in the sense that it looks exactly like the one you'd get from the animal, but it has been synthesized in a lab. The longer chain peptides, and this is like BPC157, thymus and alpha 1, theymes and beta 4, all of those peptide, Those also are bioidentical to what might be naturally occurring in our bodies, but they are not bioregulators because by definition, and maybe I'll talk quickly, that the longer chain peptides and even short chain peptides like GHK and KPV, they act as signaling molecules.

So they bind to receptors and initiate cellular cascades. What makes a bi oregulator a bio regulator is that it is an epigenetic switch. So that means it acts directly on genetic material in the nucleus of the cell in, the target tissue or gland or organ where it creates its effect.

Okay. Is there a way to, so for someone who wants to avoid pork, do people typically include that detail with their bioregulators, or do you have to ask?

You have ask. But having said that, there aren't many suppliers of this stuff. Like the, the Kevinson's, I don't know if you want to call it methodology for extracting biorigulators is fairly close guarded information.

So there to, to my knowledge, There's really for sure one, maybe two companies who actually will take the animal product and create the bioregulator actual product that is then encapsulated or used however it's used by the manufacturers, so Profound Health that you mentioned, but who make the nature's marvels that are natural bioregulators as per Cavinson's recipes.

Like they have, they had a very close relationship with Professor Cavison right up until he passed away and had his blessing because what happened was it became impossible to get product out of Russia.

And so at that point he kind of gave them the nod and they made their own. I got you. Okay. Hey folks, I just wanted to throw a little message in here for those of you who are sending me all these incredible questions on social media or through YouTube or even on Spotify, wherever you're listening to the podcast.

I wish I could get back to each one of your personally, but unfortunately I can't. And because I cannot, about a couple of years ago now I created a membership community where I get to hang out with people just like you.

I do live weekly Q&As, almost weekly anyway. We also do have podcast guests come in to answer everybody's questions and do presentations. You get interact live with those podcast guest.

we will sometimes do challenges with some of the partners. Like in 2026, we have a mitochondrial enhancement challenge coming up where we're gonna be testing mitochondria function, We're going to be testing people's deuterium levels.

If you haven't heard about deutereum, we've got podcasts coming down the pipes on that. And then people will be invited to follow a personalized protocol and then retest their mitochondria on the other side.

We offer that in the membership community and we do it at incredible discounts that you just can't find anywhere else. So if you're interested in hanging out with me and other like-minded people, which actually happen to include some pretty awesome practitioners and even some previous podcast guests who've come and joined the community, then I invite you to check it out on my website natnidam.com slash the dash longevity dash community or just go to natnadam dot com and look for the longevity community tab at the top of the page.

Click on that and see if this is right for you. I would love to see you there. and we could make 2026 our best year ever together. So once again, that's natnidham.com.

Just look for the Longevity Community tab at the top of the page. Now let's get back to the show. Our bioregulators, just to clarify, are they actually found in the human bodies or are we mimicking something from the body?

Just because it comes from animals, obviously we're not going to take it from humans for ethical purposes. That would be a bad idea. But the short answer is yes.

It's like so many other things in our body, we make more of them and we are more efficient with them when we were younger. So what we do when using a bi oregulator later in life, if you will, is we're basically shoring up our defenses, right?

We're now reintroducing them as a therapeutic agent. So we still have some, we just don't have as much.

Organ-specific signaling and how bioregulators work

For the person that is super new into all of this, everything you said made sense to me for the most part, because I've heard about this stuff a lot, is there a quick way to say the difference between the two, between synthetic, or is it just like, you got to…

Yeah, no, actually, there's a bit of a difference in how they work, right? Typically, the natural bioregulator, it will take a little bit more time to take effect, but the effects might last longer.

And the reason for that might be because there's all the other players around it, because it comes with a cohort, if you want it's like a deeper rebuild.

Okay. Right. Instead of just changing the sink in the bathroom, you might actually do more remodeling. You might be like, oh, the cabinet's getting a little soggy.

Maybe we need to do a repair work down there. With the synthetic, it's going to go in and just pull the sync out and plop in a new one. So that doesn't mean it is bad.

It is quicker acting, but the repair might not last quite as long. Because it doesn't have all the signaling. Yeah, exactly. Now, you know, there was another interesting question about, will they work differently for people who are very sensitive, let's say.

And interestingly enough, in Russia, they will sometimes start with a synthetic bioregulator because it's a bit of a cleaner hit. It's not doing as much.

And they can also titrate it a little easier. The problem with the synthetics, I mean, Profound Health has a couple of synthetics. There's a few other companies that have more.

And we'll have links in the show notes, you guys, about where you can buy this stuff. Because I know that was one of the big questions in Bill Lawrence's episode is, where do I get it?

I've since added links to those shownotes, but we will add those links here. So people will have the option to go out and source these things for themselves.

Sounds good. I think we can move to another grouping of questions, which is the audience confusion here was more around if these are proteins per se, and I you cleared some of that up earlier, wouldn't they just get digested?

Like how does it actually make it through your digestive system without being destroyed or being absorbed some other way? There was many questions under that.

That's kind of just the theme. Yeah. That's a great, it's actually a very valid question, right? Like we are led to believe that we eat protein and we have proteases and other enzymes that just chop up the proteins into, we believe, single amino acids so that they can be absorbed.

Actually, not that simple. The body is more complex than that and there's more nuance. And when it comes even to certain other proteins, but definitely with the bioregulators, they're embedded and they are naturally occurring in food, right?

Like if you eat liver, you're going to get liver bioregulator with your liver. You're not going get as much as you would in a supplement, but you are going getting liver bio-regulator.

The way that Mama Nature decided to figure this out is the way proteins are digested is there are specific cleaving sites on either end of that amino acid chain.

And so the proteases will go after those sites and you will now have just that bioregulator and wildly there are transporters for these tiny proteins across the gut lumen.

And they'll get transported into the bloodstream and then they get delivered to their targets. So they don't break down the way they all get broken down.

We don t need like a time release capsule. This is what makes them so powerful. Like this is a natural This is very natural to the body. The body recognizes it, this is something it's accustomed to.

It knows what to do with it. We have all the machinery to use it if you will. What we're doing is we are simply bringing it back in a more therapeutic dose.

There was a question of what makes short peptides different and I think that fell under the same kind of questioning as digestion. So you might've just hit that, but if there's something more to add to it.

If the person means short peptides as in bioregulator peptide versus let's say the signaling peptids that we talked about, like the BPC157. And some of those, again, I'll say KPV and GHKCU are three amino acids.

You could say, well, aren't they bi oregulators? What really sets them apart is that the bi-regulator, gets into the nucleus of the cell and acts directly on DNA.

Bill Lawrence describes it as it repairs the DNA's ability to produce the proteins it used to before. Oh, that's a big difference then. Whereas GHK, as much as impacts thousands of genes, it resets genes to a more youthful setting, but it does that as a signaling molecule.

It doesn't actually get to the At least nothing I've read would imply that. KPV also, it's a very powerful anti-

inflammatory. It has some anti microbial benefits.

Its really good for the gut, but it also it doesn't do it through an epigenetic effect. it does it as a cell signaling effect Okay. Yeah, that seems like a pretty good distinction.

That was worth answering for sure. Do they survive stomach acid? It sounds like you're saying yes and that we don't have to worry about that necessarily.

You don t need to. It has nothing to do with anything. Okay. Another question was, are the capsules specially designed or should they be? Sounds like no, because again, the body recognizes what it is, knows what to with it, and knows where to send it.

Yeah. We want to deliver it into the gut. Basically, we want it delivered into gut and it gets absorbed out of the stomach, out Can I ask a curiosity question?

That's the beauty of having you here. Other people may wonder this, too. This is more about, I guess, peptides than, quote unquote, bioregulators. we're seeing more oral versions of peptides.

Should we still be like, for instance, BPC 157 is, is available a few places orally. But if we start seeing that like for $12 on Amazon, should we be concerned?

Because I'm just worried that everyone's going to start creating oral peptide that, and I tend to only, I mean, if you care if I talk about brands, but obviously like through, through you I've learned about level up.

And so I tended just to stick with, with their oral peptides, but I have been wondering because I'm seeing them start to pop up different places. Yeah, no, those are really good questions.

So number one, let's just agree that buying supplements in general from Amazon is problematic. Don't do it. It's a bad idea, right? Yeah. And not the challenges.

Because it's almost impossible to distinguish the real stuff from the fake stuff. If I was a brand and I get brands are trying to survive, they're trying make money, so funny yesterday, I came across a thread somewhere because good culture got bought by an investment company and people were railing against it.

They were so angry and i get it, Like Siate got bought and their quality went up in smoke. I think what people don't realize, they attribute it to greed.

What people often don' understand is when you get to a certain point of scaling, sometimes these companies are a victim of their own success. they can't raise the money fast enough privately to survive.

And so then it's private equity firm. So then they get kind of thrown into this impossible situation. Like, do we contract? Do we close the doors? Did we go bankrupt or do?

We make a deal with the devil. Yeah. Unfortunately, if they're with any luck, good culture was able to protect their quality somehow from the private equity firm.

But I, you know, I feel bad because people are so disappointed. They're so sad, but I also feel for the founders because they're really just trying to survive.

How to cycle bioregulators and who benefits most

It's a good thing for people to recognize that even if you see or like a different seller selling your favorite supplement on Amazon, you may want to be a little…

I'm not trying to get you in trouble with Amazon here. No, no, I don't do anything with the Amazon anyway. But we

just are saying that obviously if it's a difference seller than the product that you're buying, that's maybe odd and maybe don t purchase that.

Well, if that s too cheap, guys, generally speaking, There's a reason. I had this conversation with Karan Krishnan about ashwagandha. If you're buying ash waganda for $12 or $15, not only are you not getting what you need, you could be getting bioactives that are harmful to your liver.

This is why ash waganda has a really bad rap. So, number one, buyer beware. Now, to go back to the actual question, which is about survivability of peptides in the gut, when it comes to longer chain peptide, there is a race on to make these peptids absorbable through the good.

Because of course, the injectables are a problem on a million different levels. The BPC157 is the exception to the rule though, as is KPV, and as there's some good evidence around GHK as well.

And in the case of Bpc15, it technically makes no sense because this is a 15 amino acid chain peptide. So technically, He it's a prime candidate to get chopped up into bits in the gut, but it comes from the got it is known to the guy.

It gets, it has special status in. So I need this myth to die right here, right now. BPC-157 can be taken orally. It is really good for gut health. In some cases, it can even be helpful for musculoskeletal issues.

Now, if you have an acute musculo-skeleton injury, not going to lie, there are better, other, more efficient ways to use it, which at this stage of the game are not actually really allowed.

Oral can work. I've seen it work in people who were taking it for the gut and had no idea. But then they come back to you two, three, four weeks later and go, is it possible that my back pain is better?

Is it That's the only reason I take it. I didn't even take for the gut and I was too scared to inject myself. So I guess I'll just blow $100 and see if this works.

And now I've got my mom on it, my dad has rheumatoid arthritis, he's on. They're giving my 92 year old grandma, she can barely swallow pills, but she they're giving that to her as well.

And I can attest that I take it just so I feel 27, even though I'm not 27. You look 27! Thank you. But aside from this, I am a professional dancer and it's painful at my age to dance.

The months that i'm on the BPC, i feel unstoppable. Beautiful. I'm sold and no one, you know, it was just a test just to see, I don't know. But I usually have a lot of hip pain, a lotta shoulder pain.

I feel great. As soon as it wanes though, back in my, at the masseuse with those same issues. Um, but I didn't want to take it nonstop cause I read that I am not supposed to.

So anyway, we digress, But do you think people are, are maybe curious about, okay, well why are all the bioregulators oral and not, or I not seeing all of the, all the peptides, the longer chain peptide's oral.

The next segment. or theme of questions is going to be different from what we just discussed. Some people are struggling to understand whether it's organ versus system signaling.

So now we're kind of switching gears to understanding how it works in the body and we'll pass the, how does it get absorbed? And is this the same as food?

So that's a really good question. And they are typically organ. That's how I will like my, my line is organ tissue. organ tissue or gland, right? So if you look at the names of the bioregulators or what they address, we have the pineal gland bi oregulator, adrenal gland thyroid gland blood vessel, heart, liver, lungs, bone marrow, central nervous system.

So the short answer is it a little bit depends, because it's going to target the penile gland but the menial gland is going affect systems. It's gonna affect the endocrine system It's going to normalize melatonin production.

It is going help to reset circadian rhythm. The blood vessel bioregulator is gonna affect the entire circulatory system, right? It helps to restore integrity and function to the lining of the blood vessels.

There was another bone marrow biorregulator, it's gonna address bone marrows. So cartilax or the cartilage bi oregulation, okay, you're gonna be like, oh, that's joints.

No, it's you have cartilage in your skin, you've cartilages in blood vessels, cartillages every organ that has to expand and contract, which is pretty much all of you, even in you're bones.

So in the case of the cartilled bioregulator which regulates the production of collagen and elastin, your effecting the system of collagen that is through the body, right?

But when it comes to the adrenal bi-regulator, its going to effect the adrenals glands specifically. or the thyroid better, right? So it just depends which bioregulator.

And from a downstream effect, it ends up, of course, impacting what all the systems impacted by that that gland or that tissue or organ, right? So, kidneys might be helpful in detoxification, obviously, but kidneys could also might helpful with blood pressure regulation.

So the next question would be, how do they know where to go? But can I take a stab at it from what you just said as a listener and learner? Yeah. Yeah, yeah.

If you said that the body knows what to do with it, and it's also derived specifically from some organ or gland of an animal, it already has messages or it comes with a set of messages.

It's going home. This is the wisdom of the human body, right? I'm sure somebody smarter than me would have a much better answer and I could probably go dig it up and maybe I'll talk about it next time.

But at the end of day, there's so much powerful messaging at a cellular level that happens in the Yeah. You can almost imagine it as a homing signal. It's packaged with instructions as it enters, and they're much better than IKEA instructions, I'm sure.

They seem to know where to go. I never freaking know what to put anything. They forgot to drill the one hole that finally holds the piece together at the end.

Yes. So better than that. Can they affect multiple systems at once? Yeah. Yeah, they can. And like I said before, right? It's because as a downstream effect.

The pineal gland bioregulator in particular, it affects almost everything. It affects the immune system, and it effects so many different systems. What about Alzheimer's?

one that you often… And the thymus gland bioregulator affects the immune system and the system is going to fundamentally… Yeah, everything. Yeah. Okay.

That's an easy one. What's the hierarchy? I don't know how you're going to answer this question, but good luck. Um, what's that hierarchy brain versus immune versus endocrine.

So I guess if someone's choosing just to get started with bioregulators, do you go, What am I having trouble with? Should I start there or I'm aging? Where do I?

Start? It's people would be in different, um, categories of starting bi regulators for different reasons. Yeah. I would say, look, if you look at Cavinson's work, If you gave him one bioregulator to play with, it would be the pineal gland

bi oregulation.

And the Pineal Gland bi-regulator will impact immunity, endocrine function, circadian rhythm, and telomerase, telomere. So he's touching all four of those right there.

If he gave them a second bi regulator, when he did his elderly people studies, That's when you brought in the thymus gland bioregulator. The emphasis got put on the immune system.

And so to me, you have to start with the system and certainly, and you and I will do another podcast together, maybe about my journey over the last couple of months.

I knew this before, but this experience has cemented for me that proper immune function is the key, and I don't care what anybody says, is healthy aging.

Because if your immune system is not working properly, it's going to affect your cognitive function. It's gonna affect you cardiovascular system. it gonna affects your joints.

Its gonna effect your ability to modulate your response to any number of things. its going impact inflammation. What's one of the hallmarks of aging? Right?

So, inflammation is a new hallmark of aging. So it's going to impact your microbiome. Now, your micro biome is also going impact you immune system. But to me, it would be pineal gland, because brain, yeah, I mean, look, if you're having issues cognitively, you are going want to bring in the blood vessel bioregulator.

You are gonna want bring the central nervous system one and the pinea gland. That you have to modulate that immune systems. Yeah, it sounds like most people would be good to begin with pineal gland, thymus gland bioregulators, and then follow that with whatever.

Food, organ meats, and supplement sources

Say you have heart health issues in your family that you're trying to avoid, then maybe you are looking at the different vascular I would say the blood vessel would be your number three.

So if you had a triad, right, I will often talk about this when I'm speaking, is your first triads would your pineal gland, blood vessels, and thymus.

Those three would would the core. And I think if we added two more to that, we would add the central nervous system and cartilage interestingly enough.

What if someone finds that they have a tough time with methylation? Would the liver one be a good one? Liver is great for liver support. One thing to remember with the bioregulators is you still need to do everything else.

If you need methylated support, you're still going to need two properly supplement the things that you need for methylation support. Think of the bioregulator as the work crew that's coming in and doing the big work.

They still need everything else to be in place. They need materials, they need tools, you know, all the, things to create what you're asking them to. But they are the experts in the house.

Yeah. And then some of other ones that are kind of cool, but it seems like you could still say, start with pineal gland and thymus gland bioregulators are like some of the ones that you've talked about before that like help with gum regeneration in your mouth.

And isn't there like one for eyes as well for retinamalin? Yes. So there's an eye, there is a bi-regular for the eye. But the, you know, if I'm working on the I, I am also thinking about my blood flow to the eyes.

Oh yeah, interesting. Blood flow comes into play everywhere. Yeah. Right. And the bone marrow bar regulator is another one that has to kind of, you have to keep bringing it in because rejuvenating your bone marrow, that's where your immune system comes out of.

Like your bones are super important. That's what your cells are coming from. Your physical regenerative properties are. You know that better than ever now.

Oh yeah. First hand. So that's actually all a good segue to the next set of questions, which is around, how should I take bioregulators? So some of this we've kind of answered globally, but some more specific questions are, are they taken daily?

Are they cycled? Now, how long they get cycled for depends. So from a preventative perspective, let's say you want to use the pineal gland, thymus gland and blood vessel.

You want your body could use a little refresh, right? So we're using these as a healthy aging strategy, let's say. So depending on our age, we might do that cycle.

We might 30 days, once, twice, three times a year. Okay. Right? If I have someone in front of me who's in their 40s, I might say, well, you know, one or twice a, year you can do a 30 day run.

Yeah. If someone is in the 50s depending on their state of health, we might say two, maybe three times a year. Once we're hitting our sixties and seventies, I would say three to four times the year wouldn't be the worst thing.

Yeah. So that's more preventative. What about therapeutic? So therapeutically, what we will typically do is if we are trying to support improving function in a system.

So we're now using them as part of a whole plan, let's say. What I would typically encourage people to consider is a 30-day run to kind of… And if we don't see much after 30 days, we might repeat the 30 dates, right?

But after thirty days we start to see the needle moving on things, and now hopefully we are measuring labs. I've seen it help with thyroid, I have seen to help adrenals, seen help a lot of different things.

If we're not going to repeat the 30 days, what I often encourage people to do is to 10 days a month for another two to three months, just to kind of remind and refresh the signal.

That would be therapeutic. Like you feel like your immune system really took a hit. you're trying to beef it back up, that kind of thing. Okay. Yeah. I have heard of the 10 days and I didn't know who that was for.

The other time I use the ten day cycles is in a kind like a healthy aging strategy. And so when I, you know, in my membership community, sometimes we'll do a year of, I'll offer a Year of Bioregulators programs and people will pay a bit of a, bit more and all sit down and write out a protocol for them for a full year.

And what I'll do in that protocol is number one, I will take into account some of the propensities they might have. So let's say someone like me has a propensity to develop tight tube diabetes as we get older.

I have certain genetic dispositions, runs like wildfire through my family, the whole nine yards. And so I might put a little more emphasis a bit more often on the pancreas and the liver, stuff like that.

Typically, what I like to do is I'd like start people with that 30 day run of almost all the bioregulators and then we fall into 10 day cycles per month and we cycle through the bio-regulators.

We just might come back to certain ones that are of particular areas of focus for an individual. Do healthy people benefit? Well, you've already answered that question.

Yes. Because preventative is- So I'll give you the analogy that I always use on podcasts. And that is that the way I

look at bioregulators is the where I looked at how the tires on my car wear.

When you first get your brand new car tires, if you ever looked your tires they're kind of fuzzy. They've got the little fuzzy things on them. The tread is super deep and they are fresh and amazing.

And as you drive on them, the little fuzzy stuff wears off. The tread starts to wear down. In a healthy person, we're not waiting until the tread is gone.

We're just, our tires are still gripping. But we are losing tread. So what we try to do is rebuild resilience into that tread before we lose function.

One thing that's really important to know about the bioregulators is their job is to get you back into balance. They are not going to make you super collagen producer.

They're not going to push your thyroid into overdrive. Their job is to get those levels back to where they need to be. And this is why in elderly people, you often see the pineal gland bioregulator really show up, right?

Because their melatonin production is in the toilet. And now you start to restore their Melatonins production and restore the circadian rhythm, assuming that you can get your mother from doom scrolling till one o'clock in morning on Instagram.

Sorry mom, throwing you under the bus there. But, you know, as long as you don't fight it and you go with it, elderly people often experience very profound shifts because they're the ones that are way off baseline.

Yeah. So, I mean, that you just answered this question, there was another question of, are they age dependent? And that's, basically what you- Yeah, definitely there's use case scenarios even in, and I've seen them used in quite young people and kids when there is imbalance.

There's no reason to use them in a young person. But, you know, by your late 30s, things are starting to, sadly, folks, that decline starts to happen around the age of 30. Some people say even younger, but I would say around age 30, and I wouldn't be pounding the bioregulators if you're a 30-year-old, definitely by the time you are hitting 40, it might be time to think about, okay, well, maybe I'll at least do some of the basics.

You can start to feel the tires wearing at that point when you're around 40, I think. Okay, so the next section is we're kind of going back to the digestive conversation, but there was more specific questions around food.

Like could someone, instead of taking bioregulators, can't I just get it from food if I eat nose to tail? Or if i tend to eat a lot of organ type meats, am I good?

Am I getting all the bi regulators? And if not, why? What's the incentive of Okay. So let me start by saying food should be at the foundation of your health, right?

And if you're eating organ meats, that is amazing. And you will get bioregulators from the organ meat. Here's the tricky bit. Number one, I don't know the last time somebody told me that they were eating kidney, thymus, adrenal, thyroid, blood vessels.

Um, number one. not getting a lot, right? So it's a good idea, and so there's hierarchy, if you will, of sourcing of bioregulators I referred to. So number one is the organ meats and food in general.

You're going to get a sprinkling of it through those foods. Your next layer is going organ supplements. So things like Heart and Soil, Ancestral Supplements, Paleo Valley, these are all companies that have in their lineup of supplements, desiccated organs that they've encapsulated.

And very often you're going to go to their websites and you are going see testimonials waxing poetic about an impact that someone experienced from using some of these desicated supplements and part of that is simply

because not only is there bioregulator in there, but there's all the other stuff.

Think about liver. Liver is nature's multivitamin. You're getting methylated Bs, you're get bioavailable vitamin A, vitamin D. Like you are getting all this amazing nutrition as it's encoded by nature.

So it is bioidentical. Your body knows exactly what to do with it. I think those organ supplements, especially for most people who won't eat organs, are great on a day to day basis.

Or you get products like Pluck. Right? So Pluck was created by a chef, a Hollywood chef. And he decided everybody needs more organs in their life. So he's created these spice blends with organs.

Brilliant idea. You're not getting a lot, but you know what? You are getting more than you would otherwise. Right. Oh, that's so interesting. Yeah. I remember.

Then the next level up from that would be your glandulars, which have been a part of alternative medicine forever.

Evidence, outcomes, and closing thoughts

The thing with glandular is they're very, very active, you need to know what you're doing with them, right? And so the example that I always give is like the thyroid glandular.

You really will never use that for someone who has an overactive thyroid because you'll send them to the moon. Whereas our next layer up is the bioregulator.

Now the thyroid bi-regulator you can use for someone who either has an overactive or underactive thyroid because it's looking to come back to homeostasis.

So that's kind of like your hierarchy. The short answer is when we're looking, it is why we take supplements. You can get taurine from food. The reason we use taurine as a supplement is because we need a therapeutic dose to correct an imbalance.

Same thing with the bioregulator. Okay. So would someone who eats organ meats also want to supplement with that or it's kind of a either or? Well, it is different.

The organ capsule type things. Look, if you're Paul Saladino and you are popping raw liver every single day, you don't, right? For most people, they eat liver once or twice a week.

It's a lot. And it probably enough at that level. You're just not going to get the therapeutic effect. Okay. You're not going to find pineal gland to chomp on.

you're just not gonna get a bag of pineel glands you can munch on during the day. It's not to happen. I can see that. If the organ meats are cooked to death, does that destroy the bioregulators?

I mean, we don't want to encourage people to be eating raw liver unless you know how to deal with it. I know Ben Greenfield eats raw livers in his smoothie, but he also puts it in buttermilk for a time.

He does some things to it to make it safe to eat. So that's not the recommendation here necessarily. But does cooking it, do you miss out on the bio regulators or Yeah, it's a good question.

I don't fully know the answer to the question, I think they're pretty hard to destroy. You'll lose enzymes, you're going to lose other nutrients, and that's why people think raw liver is better if you can make it safe.

You know, you get all the enzymes already naturally present in the food and it's unadulterated. But you know it is like eggs, like raw eggs. There's a legion of bodybuilders out there that swear by raw egg.

The tricky thing about raw is raw white actually robs your body of biotin. Right? People don't realize that. So raw, egg yolk. bomb is the best because you're getting the choline.

Egg yolk is better when it's uncooked, egg white is there when its cooked. I just think with the bioregulators, my sense is they probably don't get destroyed, but you are going to lose other things if they're overcooked.

Okay. And this next question, I like the way they asked this question. Is this filling a modern gap? And I think you just said that in so many ways. I mean, all of us ate, or our ancestors ate more organ meat than ever back in the day.

But we would eat it first, right? Yeah. If you go to hunter gatherer groups, they eat the organs. Yeah, regularly. Right. Oh, yeah. That's interesting to get all the nutrients first.

Yeah. Okay. Well, that was super interesting. So I guess the last grouping of questions we'll look at, does this actually move the needle? So people want to know about evidence, clinical outcomes, and that kind of thing.

Bill Lawrence talked a lot about that in the episode, so you can go back and read that. But there were still some lingering questions, some of which were, is there evidence bioregulators can help specific conditions?

So if you want to… Yeah, there's, I mean, look, number one, definitely lots and lots of research around this. Definitely some the books that have been written about the bi oregulator talk about specific use case scenarios.

I've seen studies where they did, there was one on COPD, I think, where in one instance, people were given just the conventional medication. And the second group, the test sub, so the control group just got the convention meds and the task group got conventional med with the bioregulators.

And the conventional group, they got the effect they were supposed to get from the drug. But test subjects who got to bioregulators had better, faster outcomes.

And in some cases, either used less or no medication, depending on the person. So that's what I was saying earlier, like they played really well with other interventions.

They are not medicine, right? So sometimes you need medicine. But sometimes, what if you could take medicine and encourage the body to repair at the same time?

Yeah. The other question is what biomarkers improve, and I think if your If you're someone who's looking to improve certain biomarkers of your own, go out and look for that specific research, because it seems like there's decades of research to look at at this point.

Yeah. And what I've seen them do is in people with liver issues, I have seen liver enzymes improve over time. But that's not the only thing people are doing.

Right. Like I had a woman who had Hashimoto's problem and she'd been going at it with her naturopath forever. She finally decided to throw the bioregulator in there.

So she had changed her diet. And finally, when she threw that bioregulator in, that was the final piece of the puzzle that clicked for them. So it doesn't mean if you have Hashimoto's, you can right now take a bunch of thyroid bi oregulators and your Hashimoto's is going to go away, but it can support all the other things you're doing.

And sometimes, and you'll see it, obviously, reflected in your blood work. Yeah. Who sees the biggest impact from bioregulators? That's a pretty generic question because we've talked about a lot of different examples of that.

I think that the people who see the greatest impact are going to be the People who are doing everything else, who also supporting the system in all the ways.

Definitely, we see in some of Kevinson's work, elderly people really Like the old people study where he gave them the pineal gland bioregulator, like every metric got better.

Like their quality of life got, better their sleep got. Well, and when your sleep gets better, everything else gets. Right. Their bone health got their immune health.

Got better like everything. They just became more resilient people. Now, is it because they were sleeping better? Is it. Because they. Were making melatonin.

Is. It because their telomerase was activated and their Telomeres, Is that the global impact of all of those shifts? Probably. But so sometimes you're going to see it more, I said this earlier, sometimes in elderly people, they'll feel it a little bit more or someone who has an imbalance, anybody will feel that more.

Somebody who's doing it preventatively might not feel much at all. So then it becomes a bit of a leap of faith. So not so much a Leap of Faith, but then you really truly have to believe that this strategy is going to be helpful to you because you're not necessarily going feel it.

Now, if you are someone who does labs fairly regularly, you might see really subtle shifts in the right direction, But that's going be based on the individual.

I mean, If you drinking a bottle of wine every night, You might not see much at all. Yeah. I mean, it also probably, I hate to say this, but separates people from one person getting some kind of, some virus or something like that, and one one, person really being dragged down by it, doing okay and clearing it pretty easily.

You just never know. It could really set you up for success in a way that you don't expect. Look, here's the deal. The more resilience you can build into your system, the better set up you are when the cosmic world sends a curveball your way.

It doesn't mean that you may not face serious health challenges at some point for reasons unknown, but the more resilience that's built in the system, the better chance you have of coming out of it in good shape.

It may not be a metric up front that you see, but it sure could, you know, pay off. Yeah. I think the resilience part is really important. So I that's probably all we have time for today.

Do you want to close us out? Yeah, I mean, listen, these were really good questions. As Erin said at the beginning, if this was helpful to you and you want us to keep going, then ask more questions on this episode.

But frankly, we could just go back to the first of the Bill Lawrence episode and harvest another, I don't know, another 10 episodes of questions. But if you guys enjoyed this and you have more questions, then definitely let us know.

Another place to get a lot of your questions answered, I'm going to give a shameless plug to my membership community here now because I do have a community on Circle and it's filled with really smart people like I've got clinicians in there and then just people just regular folks who are just really interested in all this stuff.

And we talk about this in the group all the time and other things all two to three times a month. Like I go in there and do live Q and A's. I bring in podcast guests.

We do some really cool things in their. So just go to natnatum.com and there's a tab at the top, longevity community, and you'll find information there.

And then like we said, we're going to put in the show notes where you can buy bioregulators. There's at least three that I can think of that are three suppliers and one shipping out of the US one, shipping, out, of Europe and the other two are shipping at a Europe, but profound health.

Hopefully by the time this episode releases, we'll be shipping to the States there. I don't know. Somehow they got caught in the barbed wire of red tape.

These poor people have been working so hard to figure it out. So they're just, they are this close. We'll see if they've got it together. You can still get them.

I've bought them from out of state. It's just a little, I mean, it's a few dollars more in shipping, but you can. Well, they have to charge tariffs now too.

So it got a lot more expensive. They will be able to bypass the tariffs once they're bringing them in in bulk. Not bypass, somehow there's the difference, there'll also be codes for you guys in the show notes.

There'll be discount codes and yeah. That's it. If we have a part two, we may tackle questions like people had questions about telomeres. People had question about bioregulators and cancer risk, menopause, sourcing.

We can tell you the sourcings bit because we'll put that in the notes. But those were some of the other kind of groupings of questions. So if you're interested in those, definitely And anything else.

Yeah. So yeah. And Erin, thank you so much for joining me today. This was so fun. I really enjoyed this. Hopefully you guys enjoyed Erin as much as I did. I love having her come along for the ride.

She's awesome. You can give us your comments on that as well. Go Erin. Thank you. All right. See you later. Bye.