How To Stay Young With Bioregulators

Jen Pfleghaar, DO, ABOIM
with Nathalie Niddam, CNP, BPC

Jen Pfleghaar, DO, ABOIM
Hey, everyone, welcome back to the Peptide Summit. Dr. Jen is here, and we have a great interview today. Nathalie Niddam is a self-proclaimed science geek with a passion for human health. She's the host of the Biohacking Superhuman Performance podcast. If you haven't listened to it, it's amazing. She is a certified holistic nutritionist and an epigenetic coach with a keen focus on human longevity and healthspan. A few years ago, she stumbled upon peptides at a health optimization conference. She was captivated by the potential of these tiny proteins and what they represent for human health. She believes they will truly continue to revolutionize medicine. Nat's passion is looking at longevity through the lens of all we can do in every area of our lives to promote vibrant health and boundless energy, focusing on a healthy mind and body. She works with clients one-on-one, manages two large and growing communities, and speaks frequently at international conferences on the regenerative powers of peptides and peptide bioregulators. Welcome. I am excited to have you. You are the go-to for peptides and bioregulators. We are so happy to have you here today.

Nathalie Niddam, CNP, BPC
Well, thank you. It's an honor to be here. I appreciate being here. Thank you.

Jen Pfleghaar, DO, ABOIM
Yes. Of course. let's dig right into the meat. Maybe first, before we dive into bioregulators. You said you just discovered peptides at a conference, and you were like, What are these? Because this is what happens to everyone. You hear the word peptides, and people think of collagen peptides, and you're like, No, it's more than that.

Nathalie Niddam, CNP, BPC
No, it's so much more than that. It's truly like they had been mentioned to me a couple of years ago by someone who wasn't particularly committed. He went, “Have you heard about these things called peptides?” I'm like, “No, I haven't heard of them.” I was at this conference, and if

people have heard me speak before, they probably heard this story. I'll keep it very short. But I was tired, and I needed to sit down. I found a chair in front of the stage. A guy was standing there talking about these; he was talking about whatever. He said a few things that just caught my attention. The next thing I'm on the edge of my seat going, did you just say that? Did he say that? At the time he was talking about the peptides he was talking about, he was talking about BPC 157. He was talking about MILANA 10 too. He talked about it a lot. The people that he was talking about that old people study that Khavinson did way back. By the end of it, my jaw was on the floor.

I'm tapping the guy's shoulder in front of me, going, like, is this guy for real? I didn't know who he was. Is he making this up? The guy turns around to me, and it turns out this guy owned a compounding pharmacy, and he's like, “No, this is real.” This is the future of medicine. I was just, from that day on, obsessed. I tried to step away from the shiny new toy, and I just, like, I couldn't. I kept getting drawn back and forth. At the end of the day, it's become the thing that I talk about the most, and in as much as that, people need to keep in mind that these are very powerful; they're very important tools. They are still as powerful, magical, and amazing as they are, and they are still part of the toolkit. They can be a real mover of the needle, as it were because they work, they work with the body because they are fundamentally native to the body. This is one of those things where we're not bringing in a medication that's designed to block or amplify a pathway without, and very often what happens with drugs, which can be negative, is that they're very effective at blocking or amplifying a pathway, but they don't concern themselves with the fallout. Sometimes they prevent the body from having its checks and balances, which it generally has in place. For example, if you look at exogenous growth hormones, you introduce exogenous growth hormones like synthetic growth hormones into the body. At some point, because it has negative feedback loops to produce growth hormone, your body will say, “We've got enough. We can stop making our own.” That's a problem. Because then you, like, can't come off this stuff. There's a category of peptides called growth hormone secretagogue that stimulates your body to make its growth hormone. In that case, it leaves that feedback loop intact. It's not a perfect science. You still have to be mindful that you don't overuse the growth hormone secretagogue, but it's a much more nuanced approach to promoting growth hormone in the body than just bringing it in from the outside and overwhelming your whole system.

Jen Pfleghaar, DO, ABOIM
Yes, and I loved the point that you brought up that these are great, but you still have to work on your general health, like sleep, gut health, and all the things. In my practice, sometimes I'll pull out. I call peptides like the big guns. Sometimes I'll pull them out right away, but not until the second or third appointment. I'm working on their gut health. I'm working on their sleep and their nutrition. But if people have done all those basic things in their stacks, it can move the needle and put their bodies back in balance. That's what's so great about them. As you said, you're not getting these nasty medication side effects.

Nathalie Niddam, CNP, BPC
100%. It's one of the ways to encourage people because it's not to say that something like a BPC 157 can't help someone even before they've made changes. If you have someone with lots of gut issues, sometimes that BPC will give them that little toehold. It'll help them to feel that little bit better so that they can then make the other change like they can do all the other stuff. You're going to be having Kyle on. There's an oral formula BPC 157 for gut health that I've been yapping about for two years, ever since he discovered me on my Facebook group and reached out, and that was when I had him on the podcast. But with something like that, sometimes it can be the domino that we help the client, or in your case, the patient, to help them feel that much better so that they can do the rest. But remember that if you've taken care of the basics, like what you're talking about, like sleep, diet, and all the other things you may not need as much, you don't have to spend as much money. The peptides, the bioregulator, or whatever it is that you introduce—even sometimes the supplements—can do a better job because, as Dan Stickler says, Who's the guy? As it turns out, he's Dr. Dan Sticklers, the guy I first heard talk about peptides. As he taught us, you can't optimize a body that's out of balance. To get optimized and to be better than baseline, you have to get to homeostasis. You have to get to a balanced state. Only once you're in a balanced state can you optimize.

Jen Pfleghaar, DO, ABOIM
That's a great point. It makes me think that I'm looking at my cold plunge right now that's in front of me. There's so much drama over that. It's like, if you're in a health crisis, you shouldn't be getting in a cold tub. Like that should. It's not common sense for everyone. I started cold-plunging because my thyroid was in remission for Hashimoto's. I felt in a good place health-wise. Then I added that in as a biohacking tool. Just as we are, I use common sense when we talk about all these things too. Let's talk about the peptide bioregulators. So some people are like, I just learned what peptides are. Now you're trying to talk to me about bioregulators. That happens a lot.

Nathalie Niddam, CNP, BPC
So they're not that different. Guys think of a peptide only a little bit. So a peptide is, as you guys know, a protein that is 50 amino acids or less in length. The bioregulator is a peptide that is a protein that is less than 50 amino acids. However, in the case of the bioregulator, it's at most four amino acids and as few as two amino acids. These are tiny messaging proteins, and they're not. whereas the BPCs and the CJCs of the world are messengers. They're chemical messengers. They attach to a receptor; they initiate a cascade. They may even, through that receptor, influence the expression of genes. What the bioregulator can do because it's so tiny is get across the cell membrane. It is going to use a transporter, but it crosses the cell membrane. It gets into the nucleus of the cell, and it binds to your DNA. By binding at a very specific site on the DNA, it'll upregulate the production of proteins, which helps us rejuvenate and restore function at a cellular level in specific tissues, glands, and organs.

But it's interesting, as you talk, that you presented at a forum on GHK copper, which is everybody's favorite peptide these days. There are a lot of people who believe that it should have been classified as a bioregulator because it's only three amino acids. It influences the expression of DNA like a bajillion times over. I always think of it as maybe it's a little bit of a thing like champagne, where, unless the grapes are grown in a specific region in France, you're not allowed to call it champagne. The bioregulators were discovered, developed, and researched primarily by or under the leadership of a man by the name of Professor Khavinson from Russia. Vladimir Khavinson didn't discover GHK, Loren Pickart did.

Jen Pfleghaar, DO, ABOIM
Isn't that funny? Because it's just the tree, but it is. It's well-known as a peptide. It's just like in that class. and the gene expression—the studies on how many genes it turns on and off—are so cool.

Nathalie Niddam, CNP, BPC
Is it 1,000 or 4000 like me? I've seen both numbers bandied about.

Jen Pfleghaar, DO, ABOIM
It's around 60 to 70% of our genes. It is like effects or something. It just has high gene expression. And one thing is that I feel like people are also turned off by peptides and bioregulators because, like, there's not a lot of research. That's not true either.

Nathalie Niddam, CNP, BPC
Especially not for bioregulators.

Jen Pfleghaar, DO, ABOIM
I'm talking about when I talk to conventional doctors that have never heard of peptides and bioregulators, they're like, well, a farm rep didn't come in with them.

Nathalie Niddam, CNP, BPC
Do you want to wait that long? The bioregulators are those tiny little proteins they can influence. genetic expression. They're classical epigenetic switches, and you make them like your body makes them. That feeds into cabin science theory, that peptide theory of aging, which is, that we have all these different theories of aging. There's probably truth to all of them. Certainly, one of the hallmarks of aging is that it's the leading theory right now. There were six, then there were nine, and now there are 12. Probably by next year, there'll be 15. Ultimately, it's scientists elucidating how, at a cellular level, things shift in the human body that either cause aging or are caused by aging, like a bit of a chicken or an egg thing. With the peptide theory of aging, we know that the human body makes its bioregulator peptides. When we're young, and like so many other things, we don't make them as efficiently when we get older when we get sick, or when we're under undue stress, whether it's chemical stress, emotional stress, getting chased by lions, or whatever.

I was going to say saber-tooth tigers, but there aren't too many of those around anymore. So the peptide theory of aging that was put forward by Professor Khavinson is wildly simple. But if you have any understanding of human physiology, you understand that those 12 hallmarks of aging will also impact the peptide theory of aging, and vice versa. It's that all of these things are intertwined. It's not either or. The fact of the matter is that, when you bring up research and look at bioregulators, there's probably more human research on bioregulator peptides than there is on any other peptide. Because for 40 years, four decades, and maybe not for two of those four decades, Khavinson had a blank check, carte blanche, thousands and millions of people he could, like, run experiments on and not even scientists experiments. More like, this group's going to get poly vitamins, and these groups are going to get these bioregulator peptides. Let's see what their outcome is. The other thing that's interesting about the bioregulators is that they're exceptionally good for older people. Because, as I previously stated, homeostasis is one of the reasons why bioregulators have such a high safety profile. The bioregulator is working hard to bring you back into balance. It's not trying to push you into superhuman land. It's not trying to suppress anything. It's saying, Let's allow the body to self-regulate. Let's restore the ability of the body to self-regulate and to be in a state of balance.

Jen Pfleghaar, DO, ABOIM
That's what makes it so unique the thyreogen bioregulator—that one you give to hyper- and hypothyroid patients. That's what's cool. Hashimoto's patients, Grave patients I can use this. That's different from other things. But when we talk about peptides too, you're going to use things like thymus and alpha-1, or thymus and beta-4, to restore their immunity with these autoimmune-type problems, which are just running rampant right now. Like what Nathalie said, it's bringing it into homeostasis. The thyroid is a good example of that. What is your favorite bioregulator?

Nathalie Niddam, CNP, BPC
It's like, who's your favorite child? It depends on the day. That said, it's interesting that I've spoken most to it as my desert island bioregulator; I've always spoken to it as being an epitalon, which is the pineal gland, bioregulator. In part because the pineal gland itself is so critical for the most crucial aspect of human health, which is regulating circadian rhythm. It is also a master endocrine regulator. If we have a way, in health and in functional medicine that you practice and all of these things, what we're trying to do is see how far upstream we can make a positive impact to allow the body to do what it does best on its own. The less we intervene, the better off it's all going to be. Generally speaking, human intervention in the human body, unless you've been in a car accident or something and you need someone to put Humpty Dumpty back together again. As much as we can get ourselves out of the way, the body has ways of healing and restoring itself that are unique and that we still can't reproduce. So the cool thing about the pineal gland bioregulator is that it normalizes melatonin levels, restores circadian rhythm, and has this upstream-downstream regulation effect on the endocrine system, which doesn't mean that all of that, just to be clear, doesn't mean all your hormones are magically going to come into

balance. But it has that influence. with the side hustle that it activates telomerase, which restores the telomeres on the end of your DNA. We can take care of a lot of things just by getting those things taken care of. That is by and large my desert island bioregulator. But the other one's becoming a close second, and this is partially driven by some research I've been doing. Digging around is the bioregulator, which sounds like it should be the pineal gland only it's not. It's called Pinealon. Pinealon, if you look it up, is the brain bioregulator or the central nervous system bioregulator. It also influences the pineal gland, but it also influences the entire nervous system and the brain. Like everything's coming from the brain—the signals and messages to your heart, to your lungs, to your kidneys—to regulate your blood pressure, to like everything's coming from up here. Maybe I'd have to, like, modify my opinion and say, Pinealon and the epitalon the two brain bioregulators might have to be the top picks.

Jen Pfleghaar, DO, ABOIM
It makes a lot of sense. So many people are just dysregulated from that nervous system and then that impacts all the other functions in their organs. We see this a lot, especially in gut health. If they're not regulated, then their gut health is going to be a mess. I love those two. How if someone's out there and they're like, well, bioregulators? What the heck do I use them for? a lot similar to peptides. These are things that you're cycling in and out of.

Nathalie Niddam, CNP, BPC
Let's enrich the conversation a little bit by saying there are about 21 different bioregulators available. So they correspond to 21 different organs, organ systems, and glands. Rattling off the big ones, we've got the heart, the kidneys, the lungs, the stomach, the muscle, the bone marrow, the adrenal glands, the thyroid gland, and the eyes, cartilage. Cartilage is a big one. We talked about the brain and the pineal gland. So, if we step back and say, first of all, it's the pancreas, if somebody has, if we have people who are having metabolic issues, what we're going to do is say, So what are the organs that are being challenged here? What are the organs that may have had some damage? What are the organs that may be fatigued? It's like if you imagine the tread on your car tires, where the treads have been worn down a little bit. You're skidding a tiny bit. I found myself renting a car where the tread was completely gone on the tires. I didn't notice it; it was like driving on ice. I was in Florida. It was crazy. What we want to do is restore the tread on those tires, get back the grip, do something for our organs, and be able to work again.

If we have someone, let's say, who's got crazy blood sugar regulation issues, and we know that there are a whole lot of other problems down the road we're all going to sit there and go, pancreas. The pancreas needs attention. We need to give the pancreas some love. Who else? The liver is going to be involved here. We want to give the liver some love. We almost always want to bring in the blood vessels bioregulator, at least for part of the cycle. Because of those blood vessels, the integrity of the endothelium of the blood vessels is going to be critical in terms of getting nutrients to the cell and removing waste products from the cell. So we want to be looking at what's going on. For example, another example might be cardiovascular heart issues or blood pressure issues. Again, the cool thing is that for someone like you who's a medical

doctor, you've got all the labs in front of you and you've got all the data that you need in front of you. For this patient, are the kidneys involved here? Because the kidneys very often get forgotten when it comes to blood pressure. Whether they're a driver or they're suffering the consequences of high blood pressure. Kidneys need some attention. We have a heart that needs attention. We have blood vessels that need attention. Maybe that central nervous system needs attention.

Maybe we need to pay attention to the brain a little bit. We start to build these stacks. In a woman who's in perimenopause, for example, her hormones are all over the place. Her ovaries are, like, breathing their last gasp. They're passing the baton over to the adrenals, who are like, What are you talking about? Why me? I've been carrying you for like a bajillion years, and you're telling me I need to take over. Now here we're going to give the ovaries some love. We're going to give the adrenal gland some love. The adrenals are going to be hanging on to the thyroid, dragging it down, saying, we need to slow down. We're going to have to give the thyroid some love. Let's not forget what we talked about at the very beginning. Our master endocrine regulator, the pineal gland, is going to play a role here as well. We're going to now start to build a protocol and stacks, paying attention to all of these different pieces.

Jen Pfleghaar, DO, ABOIM
It's so cool. I love how you described all of that because it's all related. All these organ systems pull on each other. If one's out of balance, like, help me get back in balance. and then we, most people, get on medications, antidepressants, or sleep aids. It's just that it never ends well. It never ends well. I love how you explain that they stack because they're all leaning on each other. All they want to do is get into homeostasis. I've seen it, and you've seen it so many times. Once your body gets back into homeostasis, it just breathes and can work. and this is where these methods that we use are not well received all the time in the conventional community because it's not through a drug company and whatnot. But it's very unfortunate. With these bioregulators, there's a more aggressive plan that you can use if someone has an acute or emergent situation. Then there's more maintenance stuff. Can you go through those a little bit?

Nathalie Niddam, CNP, BPC
One thing I want to stress here as well is that when you look at the research on bioregulators, don't forget that very often they get used in conjunction with conventional treatments. We don't want to throw the baby in the bathwater. There is value in modern medicine like there is. The problem is that when you use it as the only lever, you leave yourself exposed to real trouble. I want to say that because, in a world where you have someone who has major medical issues going on, you're going to want to bring all the tools to bear. But the difference might be that you're not telling someone that you're using a PPI for the rest of your life because that's your solution. You might say to them, Look, you've got a bleeding ulcer. We need to change the environment of your stomach for a little minute while we get the repair done. then you're coming off that thing. Like PPI, you are right. PPIs have been demonized for good reason. But they do have their place. So in a situation where you have something going on, you might use the bioregulator for 30 days at first, or you might use it for 60 days. Instead of two capsules a day,

you might use two capsules twice a day or three times a day. This is where the use of bioregulators, I feel, has a lot more art and nuance to it than it does by leaning only on science, whether it's because we don't have the data, or if it's because different, it's allowing for different people to respond differently, and for the physician to look at the patient and say, “What does this person need? Where can we support them and help them?” So that after one to two months of intense course, what they might do is, you start to see the needle moving, you start to see things coming back into balance. Now you might say, let's let you fly on your own for a few minutes here, and let's do little ten-day pulses every month to see if just giving that stimulus for ten days and then stepping away for 20 and ten days and stepping away for 20 will help those results stick.

Jen Pfleghaar, DO, ABOIM
Then, in the long-term studies that they did in Russia, this was something that they continued all year round, right when they were using the epitalon.

Nathalie Niddam, CNP, BPC
Again, it depended on this study. The interesting thing about the Russian work is that some of it was well translated and some of it wasn't well translated. For example, there was a lot of confusion around the dosing of the synthetic epitalon for the longest time. For the longest time, you had people running around saying it's ten milligrams a day for ten days or 20 days. As it turns out, it's not ten milligrams a day of the synthetic. It's ten milligrams a day of the biologic, which is not nearly as concentrated. If you're talking about the synthetic, it's 100 micrograms today, which is 100 times less than the ten milligrams. When we look at what they did in some of those studies, I call it the old people's study, because that's what they called it. To be clear, I'm not calling anybody old. I'm just saying that what they did is that it sounds like they gave them the bioregulator epitalon continuously for two years, and then checked in at six years and 12 years again. The group that got the epitalon had a way lower mortality rate; I believe it was a 44% lower mortality rate than the control group who had been given poly-vitamins. Everybody got something. Nobody knew what they were getting. One group was getting epithalamin, which is a very specific extract of the pineal gland that is an intramuscular injection. In that case, it may have been ten milligrams, but it's a product that we don't see outside Russia. Whereas the control group, who were also getting an injection of poly vitamins, was in both groups. It was a two-year stint, and then they were followed to see how they fared after six years and then after 12 years. Then that study was repeated with elderly people, unless the first one was elderly and the second one was old. Whatever. The second one was 75- to 85-year-olds. those people, he only followed them for six years because, of course, they're much older. He didn't expect them to live that long. The first group got the polyvitamins.

The second group got just epithalamin, which is the pineal gland bioregulator, and the third group got epithalamin and thymalin and timeline, which is the thymus bioregulator. That third group crushed it. It's impractical for humans to see what longevity is because we've just lived too long. What he was looking at was mortality. Can we reduce the mortality rate by administering

these compounds? So the control group had an 88% mortality rate after six years. They were pretty much out of the picture. and these are people living in fairly harsh conditions. in Siberia or something, which is a beautiful place, don't get me wrong. But they were not living an easy life. and then the epitalon group did better. The exact numbers are escaping me at this very minute. I apologize, but the guys who did the best were the people who got the epithelium, the pineal gland, and the thymus from a regulator. It makes sense. Because it looks a lot like the newest hallmark of aging—inflammaging—is inflammation of the system. This is dysregulated immunity. So if we can keep our immune system happy and balanced, we're going to do better in every way. That low level of inflammation, which is a dysregulation of the immune system, is ultimately what's being linked to metabolic disease, neurodegenerative disease, cardiovascular disease, etc.

Jen Pfleghaar, DO, ABOIM
Yes, I often explain to my patients that you can't have the disease without inflammation. It just doesn't happen. We need to bring your inflammation down. I love all those studies. It's so fascinating. Why isn't this being handed out?

Nathalie Niddam, CNP, BPC
We are doing our best.

Jen Pfleghaar, DO, ABOIM
Yes. That's what's great. Spreading the word. Now, you did mention synthetic. There are more natural bioregulators, coming mostly from cows, and then synthetic ones. Can you explain the difference? And what's better? Is one better than the other?

Nathalie Niddam, CNP, BPC
So the natural bioregulators are typically extracted from young cows. They can also be extracted from young sheep and young pigs. Now one thing for people to remember is that by the time you get your capsule of bioregulator, there's no animal protein left in there except for those peptides. It is unrecognizable as a pig, sheep, or cow. It is just a bioregulator peptide, maybe with some cofactors from that tissue. It's important to understand that because people worry about carry-on disease, they worry about all kinds of stuff. This stuff has been so refined, and so it's been dealt with so deeply if you will, that by the time it gets into that capsule, you have none of the messy stuff left. One of the things I like to talk about is that one other way to get some bioregulators into your life is to eat organ meats because that's where they're getting the bioregulators from, which feeds into ancestral nutrition and ancestral ways of healing. If somebody had a heart condition, they would feed them heart. If somebody had a lung condition, that would feed them lungs. It's an interesting thing that this ancient wisdom baked into humans. I don't know if humanity, let's just say,

Jen Pfleghaar, DO, ABOIM
I try to sneak all the organ meat into my family's meal. because it's funny. I put, like, liver in taco night one time, and I could taste it because I knew it was in there. I'm like, this tastes gamey. Is anyone going to notice? I never tell them, but that's good. It's good for my kids. It's good to eat from nose to tail. We just don't do it anymore. Which is very unfortunate. it's similar. So I had Hashimoto's, so I had to have some of my thyroid's long, long-term pain. But I take NP thyroid, and that has a little bit of that same bioregulator. but I also take some T4 only to make it more, like what our body produces. But yes, that's a great point. If you're taking liver capsules or eating liver, you're getting a little bit of that.

Nathalie Niddam, CNP, BPC
It's just not as concentrated anyway. getting back to the question that you asked about the synthetic bioregulators, sometimes I digress. I apologize. But I do come back to the question, and that is that what's happened is that over time, as they've been studying these bioregulators, they've come to identify the exact amino acid sequence that is responsible for that genetic switch, the switching of the genetic. Now, I will say that five bioregulators are not available as synthetics. That would be the adrenal, the thyroid, the bone marrow, and muscle. There's one other one that's escaping me, but there are five of them that you won't find as synthetic. That could be because they couldn't find the one that was the most dominant. Maybe what they're saying is that you need the complex that you're going to find in the extract to get the effect. But in any event, in the case of the pineal gland, the brain, the immune system, even the lungs, kidneys, heart, stomach, and liver—all those guys—we have synthetic bioregulators, which means that in a lab they can re-synthesize that exact amino acid sequence in the exact orientation that it's in.

This is important because there are two bioregulators, venom being one of them, and I can't. The other one might be the eye bioregulator, which contains the exact same two amino acids. Now, how is that possible? How can you possibly have come on? You've got two little bitty amino acids, and they're doing completely different things. It and this speak to the sophistication and complexity of the human body in that the way that they are arranged in a 3D plane, the way that they're bound to each other, and whatever molecules are attached to them define how they're going to interact and bind to that DNA. In the lab, they're able to reproduce this exact amino acid sequence in the exact orientation in which it occurs. That way, they're now able to produce it and make it available. The thing with the synthetics is that they can be administered in a couple of ways. This is a testament to how freaking small they are. One of them is that some bioregulators are available as sublingual drops or sprays. then you can also find them as injectable by injection injectables. and typically those are available. They were available through compounding pharmacies. Now, with the FDA regulations that have come down, they're more readily available through better research labs. But you have to be very careful because research labs are these days a dime a dozen. You've got to know who you're dealing with to make sure that you're getting what you think you're getting. When you get that itty bitty little, teeny tiny vial.

Jen Pfleghaar, DO, ABOIM
That's a great point. When you were talking about the different binds and how they're folded together, it's like when you fold your hands one way and hold hands with someone one way, and then it feels awkward, and then that feels good. But it's amazing how these affect our body at such a molecular level with epigenetics.

Nathalie Niddam, CNP, BPC
If people are listening, they're like, This makes me nervous. You can turn your genes on and off by your diet and by stress.

Jen Pfleghaar, DO, ABOIM
This is a good thing. All of these are good things. It's not just biohacking, either. It's something that should just be looked at as getting your health back into homeostasis. Because we live with so many stressors and so many toxins, we almost have to work at it. This is like a job. To get your to get your health.

Nathalie Niddam, CNP, BPC
You do. You have to take care of the whole machine. Don't forget about your spirit and your thoughts. But if you think about it, there's actual clinical research that shows that your thoughts and feelings can suppress your immune system, like being incredibly stressed or being angry too much, which can hurt your immune system. People have measured this drop. so not that we are to walk around being Pollyanna positive, even when our lives could be a whole lot better sometimes. But if there's any work that we can do to help ourselves, to be more resilient, to help ourselves, to live in the present, to live in gratitude in as much as it's possible for us, that's going to put us in a lot of trouble. It's a little bit like what we said earlier. If you can get into a balanced state, everything else you do is going to be amplified. So I'm not going to go too far over the side, but I just think we mustn't forget that peace.

Jen Pfleghaar, DO, ABOIM
That's so true. One quick question to wrap up about bioregulators: What about side effects? Are these products something that you see a lot of side effects from, or should we be worried about that?

Nathalie Niddam, CNP, BPC
Thank you. That's a great question. The short answer is that, as much as I never, ever, ever say and I will not say never, even now, I haven't seen a whole lot of issues here. Like, I just haven't. The worst thing I've seen is that it doesn't work. People will come back and say, Well, it didn't work. I'm like, How else are you doing? Are you just using this as the one thing that you're hoping is going to move the needle for you? Look, I get it. There are a lot of people out there who are desperate for answers and solutions, and they're working hard, and we want to grab on to something like this and say, This is going to be the thing that's going to fix me. Understand that

this is still, although it's very powerful, a powerful piece of the puzzle. It has a relatively good safety profile simply because of that. What we talked about before was working towards bringing you back into balance. What I have seen on occasion is that sometimes it can be too much for someone, so they have to start at a lower dose, or for someone with a lot of autoimmune issues. In Russia, I learned this from people who worked with Russians, and that is that they will sometimes start with a synthetic bio regulator instead of the biologic, simply because it's simpler. You just have the amino acids. You don't have any of those co-factors; you don't have anything else coming into play. For someone who has a very sensitive system, it's also easier to titrate. It's easier to do, even less. But by and large, they play well with medications. The only thing is, as Dr. Jen will tell you, if you're, let's say, working with the thyroid bioregulator and a couple of others and you're on thyroid medication, keep an eye on your numbers in case you're starting to see that maybe sometimes the thyroid will kick back in. This depends on a million things. It depends on how much damage has been done to the thyroid. It depends; it depends on a thousand things, but it is not unheard of that people might see a little new life breathed into the thyroid gland, and sometimes they're able to reduce their levels of thyroid medication. But this is the thing you want to be doing with your physician. keeping an eye on labs and things like that.

Jen Pfleghaar, DO, ABOIM
That goes the same for blood pressure medications; all things, you just have to know that you're going to have to keep up with the labs with your readings. Because if your body does start to go back to homeostasis, then you can pull off those conventional medications. But I agree with what you said earlier in the podcast: don't just go on a bioregulator and then throw all your medication away. It's a gradual, gradual thing, like most healing. You see, probably someone is sick. It takes them ten years to get sick, and then they expect to be better within two months. It's like, that's just not how our body works. Give yourself time. Give yourself grace and time. All the things.

Nathalie Niddam, CNP, BPC
It's going to be a process. It's trying different things and adding different things to each other. and feeling your way like we're, you're on this healing journey for whatever reason. Hopefully, you find a doctor, like Doctor Jen or a practitioner, who can walk with you, support you, help you, bring you insights, and help shine a light on what you're discovering in yourself. Like, your greatest healer is you ultimately. We need help, we need support, and we need someone to bounce ideas off of and to bring another body of knowledge into play that you may or may not have yourself. In a perfect world, you have a great person by your side. and it's encouraging. It's the way, and hopefully, the way, that medicine will be practiced. Right now, what's difficult is that our medical providers are under massive stress. They're overworked. They don't have time in many cases to be able to sit with people and lean in, like all of our systems, like, Canada's a hot mess. I don't think the US is that much better. You've got HMOs breathing down people's necks, and you've got six minutes with this person, and they're out the door; they're not getting paid for a second more. And so this is where we, as individuals, have to step up, grab the reins, find that

person who's going to walk with you, and then go for it and be the best version of yourself that you can be.

Jen Pfleghaar, DO, ABOIM
That's such a great way to finish. beautiful. much fun talking with you. I could talk all day with you. You have so much knowledge. Where can everyone find their health groups? We talked about your podcast, which is a great Biohacking Superhero Performance Podcast. How else can everyone reach you?

Nathalie Niddam, CNP, BPC
Thank you so much, Jen. So on Instagram, it's @NathalieNiddam, just my name. I've got a private membership community on a platform called Mighty Networks. The community is called the BSP community because I couldn't bring myself to use biohacking to improve superhuman performance again. My best attempt is to use all the letters of the alphabet as the title. And the best way to find out about all these things is to go to natniddam.com. That's my website, and you'll find information there about the BSP community. There's the podcast. There's all the stuff that I'm doing. I have a new project in the works that I can't talk about yet. Then, Dr. Jen and I will be meeting up at Hack Your House at the end of May. I'll be at the Health Optimization Summit in June. Just lots of different ways. I hope to see you guys somewhere, somehow.

Jen Pfleghaar, DO, ABOIM
Yes, absolutely. Thank you so much.

Nathalie Niddam, CNP, BPC
Thank you. This has been great. Thanks so much for having me.