SS-31 (Elamipretide): The Mitochondrial Peptide That Changes Everything Transcript

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Introduction to SS-31 and Mitochondrial Health

course, a bioregulator course a whole peptide journey. We'll show you actually unless we could do that. Let's pull up the links. It's some of the vendors that I do the suppliers that idea and I'll let you guys know where I suggest and i do have discount codes but you understand more when you take a full course or you're in my inner circle and you can ask me questions every month.

But let's talk about SS 31. Its technical name is a Lambipratide. Peptides have these letter numbers. It's from the two names of the researchers. This is the first letter of their last names.

I can never say it. But it comes down to the mitochondria, which is community of bacteria that created communion and cooperation with us. There wasn't a war.

We didn't beat them or engulf them. We made a conscious decision that they needed protection and we needed energy and some DNA. So we made the decision like, why don't we outsource a lot of this to you and will guarantee we'll keep you alive because there's a real harsh environment out here.

And so the communion of these two cells to agree to do this with each other is what was the beginning of all multicellular life, complex mammalian life.

It came from cooperation. stands for ultimately why this molecule is so exciting to me is the basis of everything I do is that structure dictates function.

Many of us are just trying to change function all the time and boost and amplify a system and get more energy. Well, energy is not the problem. It's the way you're losing or leaking energy, how efficient is, the control of, everything controlling the system via energy leaks, inputs, outputs, and communication, clarity or chaos, will decide your health.

And that really is all coming down to the inner mitochondrial membrane, the membranes in particular, but this one is very special. So when we deal with that, everything becomes better.

So what is SS31? This is a synthetic mitochondrial targeting peptide.

How SS-31 Repairs the Inner Mitochondrial Membrane

When I say synthetic, not synthesized, it is not endogenous to the human body. We do not make this. It was artificially created to have a very specific target.

And the target that it has is the inner mitochondria membrane. This a hard place to get to, a difficult structure for any compound to do something with.

There is a lipid inside of there that's part of the membrane. It is called cardiolipin, and it binds to it and helps support it. By doing that, it stabilizes the entire production system of how we make energy signal molecules and hydrate ourselves with what we call deuterium-depleted exclusion zone water.

Big fancy term for you are buffered, clean, and there's no toxic poison, you're hydrated, it's the gel water of life. It's structured water, that's what that is.

So what we're really doing is repairing the mitochondria structure from the most important part. That is what ends

up fixing the energy problem, the leaking and the miscommunication.

Usually not even lack of energy. We've really talked about this the wrong way. So again, energy isn't a lack of caffeine problem, all right? And it's not a motivation problem.

It really is a mitochondrial failure problem all of stress, hardiness, your ability to handle things or your building to recover, which is resilience and what we would call stress versus trauma all come down to how many and how healthy and strong and well they communicate and cooperate together of your mitochondria.

I do entire lectures on that. We have some YouTubes on. That if any of you're interested in that, we'll get those to you as well because when these break down and don't do well, everything slows down.

Nothing is going to go well. They are supplying all of the coordination for everything. All of yourselves do. So then we have a lot of fatigue brain frog.

can't recover fast aging. Some researchers go as far as 100%, but it's becoming very commonly accepted at this point that somewhere between 90 and 100% at least of all disease starts with a mitochondrial failure.

And if we can stop that, and reverse that we have a chance at reversing everything, right? So we're not going after chasing symptoms with this at all.

We're going directly in there and taking that from a two or four cylinder to a Hardy V8 so it can do what it's supposed to do. So again, it's the membranes that are the really big problem and the cardiolipin in particular, because when that happens, then we no longer can move energy, which is electrons on a photon of light.

So light carries these electrons across this chain, and that doesn't happen so well. When that does happen, we end up with things We damage, things leak and slip, let's leave it at that.

And we end up damaging the membrane more and we lead to a lot of like dirty smoke. If you're burning clean wood in a fireplace, it's not that smoky or the flue is open and you are okay.

if you have the flu closed and the wood was really wet and it was paper, there's a ton of smoke and soot and then it'll back up in the house. That's what can happen inside the mitochondria.

and inside the cell, the word we use is excessive oxidative stress or excessive ROS, reactive oxygen species may have heard that. That then leads to everything having to slow down to try to autocorrect itself.

It's trying to, we can't keep doing this. So put out the fire. Like this is a problem, which leads poor ATP output, poor communication signals, for signaling.

Most people and doctors are just trying keep boosting energy.

Why Mitochondrial Dysfunction Drives Disease

You can show your hands how many people keep hearing about NAD. Like the way it looks right now on social media, NED is the panacea cure-all. What is NAD trying to do?

You're just trying put more electrons, more fuel to the system. I don't care how much gasoline you put into a broken engine, all you're gonna do is break the engine more.

It's why only three out of 10 people respond positively to NDD and it's so many people feel so awful if you give it to them. because you didn't slow down to go fix the problem, which is what SS 31 is part of a stack to do.

Most people are not repairing the structure before they just try to boost and put more diesel and nitrous and tetris and high octane. Just put octene in it.

It'll work. No, it won't. You're going to blow up the engine. And that's what we see a lot in clinical practice. So these are some categories that I teach to clinicians, but let's just show it to you.

And what some of the molecules, this is not an all inclusive. So these are some, there's one signal that's missing. There's a category I did not put in here for public consumption.

I'll save that for my lectures, but in general, This is somewhat the order of what you're doing. You must deal with structure first and then you are paying attention to renewal, meaning the making of a new mitochondria.

you have to then deal, you can't until you got Making good new things the right way, you shouldn't be increasing voltage. You have to pay attention to redox potential.

Then you need to keep things in the system that are there to protect everything. And you always have pay to attention the terrain in which all of this is happening.

So some of it has an order and some it is all encompassing and holistic at the same time. So it's a ladder in a circle and a spiral all at same and something should not be placed before other.

Most of these problems with people having bad reactions to supplements and timing or thinking they're hypersensitive are usually timing issues. Something was brought in too soon and they weren't ready.

It was because they don't understand what it doing. People want to take methylene blue. And I got asked this question last night in my inner circle. One of the students is on tesofensin for a long time and she wants to cycle off, but her clinician said, oh, you should cycle up and go on methylene blue.

And so that's a really interesting choice because he's had two completely different mechanisms. So why would that clinician say that? I don't think he knows what methyline blue actually does.

And I love methylene blue, and I think it has an incredible place. It's one of my favorite molecules. However, you can't ask it to do, You can ask methyline blue to be an attorney when it's a CPA.

And you cant ask you to an artist if it is a pilot. Why would you think that not everybody understands the difference? So some of the requirements to fix the structure of mitochondria, SS-31 is the most potent, powerful peptide.

Hands down, it's the only peptides we have that does this. Phosphatidylcholine is an oil that you need. There's another one, but PE is another and it is usually in a blend.

Omega-3 is particularly DHA. and carnitine. Now CoQ10 is part of the structure of intermidochondrial membrane, but it really does more impact on voltage, so I don't need it right away when I'm fixing structure.

So renewal molecules, for those of you who've been seeing these things, why do you take resveratrol? I heard it's good for you. It's an antioxidant. Yeah, it helps with cleanup and renewal of the cell.

You need to understand, what is SLUPE doing? You think, oh, its for fat loss. Is it? Yeah you might be doing it for that reason, but you should understand its primary purpose is that it creates new mitochondria.

Structural Support Stack: Lipids, CoQ10, and Carnitine

That matters. So if you're taking a bunch of sloop, but you never bothered fixing the structure of the mitochondria or dealt with the senescent cells and dealt autophagy of your broken mitochondrion and got them out of picture, you are just making a crap ton of broken, horrible, shitty mitochondry.

All you doing is amplifying dysfunction. That is not what we're going for. So there's a reason things are in the category they are because of the primary purpose of what they're doing.

I see people often overdosing on NAC and glutathione, and then they take methylene blue and they do molecular hydrogen and think, why don't I feel better?

Because you're taking seven compounds that all do the exact same thing. Maybe that's not what you should be doing, because you don't know where they stack in the categories.

This is the kind of stuff I teach in my courses and this type of step I go over in My monthly membership. Okay, but I wanted you to see the category and just start using your thinking caps.

If phosphatidylcholine, omega-3s, and carnitine also fix the structure, she probably likes to stack them together. Wink, wink, hint, clue, because structure is the only one that's a little bit different than the rest of them.

So I don't want to take 8,000 renewal molecules at once. But I do want to take a bunch of structurals at the same time, because I need the architect, the construction workers, and the material crew at Home Depot.

I needed them all to work together to make sure they have enough stuff to get the job done. So again, this is what we're going after the inner mitochondria membrane.

By doing that, by stabilizing that membrane, everything is that in that member, it increases the flow. So we are not doing stimulation. We're doing repair.

But increasing repair of the structure, we automatically increase stimulation, though, because the electrons are going to move faster and you will feel better.

Most compounds are designed to increase the output. And that's not what this doing. repairing the architecture of the structure of. The most important part, the inner mitochondria membrane that then increases the efficiency.

It's just like fixing a road. If you have a ton of potholes like all over the place and all these cars are trying to get from point A to point B, but they all have to slow down over.

Big bumps are going to break their axle. They all had to go swerve around things. You're not going have efficient flow of those cars. All the pitholes and the.

cracks in the road and the messed up everything you're seeing, the tires on the roads, that's the damage in a mitochondrial membrane and SS31 comes in there and cleans it all up.

Now suddenly all the cars can move faster and everybody gets from point A to point B much, much faster. And we don't have as much chaos and noise and exhaust fumes on highway, okay?

So that how we get more fuel output and less smoke, AKA oxidative stress, because we've made the engine better or we fixed the rod, so to speak. that the cars have to go across, which are electrons.

So SS31 is considered experimental, but it has been approved. Right now it's about to launch with, I believe it is Eli Lilly has gotten it approved for a rare mitochondrial disorder.

A very small number of people have this, so they know. But here's the reality. Research use only peptides, which there are many good companies out in the market and there're many terrible companies on the Because of research use and compound pharmacies, you have had hundreds of thousands of people using SS31 from clinicians who know what they're doing and were willing to cutting edge saying, I have a severe problem.

We need something severe to try and help this. And the biohackers in that community and the bodybuilders and peak performance pushing the edge types have been using SS31 in different types of personal experiments for a long time.

But there are studies on it and it's going to be used off-label in tremendous ways. Now Eli Lilly came after all the

companies that were selling it, and issued some strong words about Using their future product that did pass and get a patent So now they consider it you're gonna sell a drug illegally and we don't want you they want to corner the market They're going to raise the price.

Renewal, Cleanup, and Communication Peptides

This is going happen now. Will it be available eventually again in a different way? I don' know but I want You to still know about this because it's that important I have not seen something so excited and seeing something change the face of real patient results in a long time, okay?

I need you to understand this is not going to be a symptom-based thing, and they're going get tremendous results with mitochondrial dysfunction cases.

And so at the heart of, so let me give you a couple conditions that the mitochondria dysfunction, autism, chronic fatigue, fibromyalgia, MS, ALS, Alzheimer's, Parkinson's.

Real big things. kidneys, right? You can go on and on, but there's no debate. Autism is a mitochondrial damage disorder, everything is centering around this.

Terry Wallace just came out with a big, she's got a course, Mitochondrial MS. It's all about this and everybody knows it. And so every way we can support them is going to be the difference between health and vitality, or barely holding on and disease states.

You're going to hear about this and I don't know yet how you're gonna get it per se. There are some resources right now and there's some last-minute sales.

If you know about SS31, there is an opening right. Now there are a few bottles left from a vendor that I trust. We can put that in there and it's a special.

I do have a code that gives you 15% off. It is called Bioamplify. We'll talk a little bit more about it. It's extraordinary. This is the same thing. Just again, we're stabilizing the membrane, which changes how it works.

So this is what you're looking at. The difference of what your going to see. Typically the protocols are 10 to 60 days. I'll explain the difference in a second.

Again, this can be super effective, stand alone. and I'm okay with it being standalone for many people. However, best results are definitely if you compare it with some of the other things.

In fact, I even like these to be taken for 30 days before. I like to flood the system. Phosphatidylcholine therapy in particular, there's even IV therapy of it now.

It's extraordinarily good for mold, mycotoxin issues. And you would, people with that would take higher dosing than normal. If we're just dealing with basic repair, we just start.

Some of the products, we can rattle them off at the end that I like, the brands that are I think are good. CoQ10, also known sometimes as the active form ubiquinol, very low dose.

It helps move, it's a lipid carrier and it moves the electrons from. It takes two electrons from complex one to complex two. This is what methylene blue can do too.

Methylene blue comes in there and acts as like a second carrier for CoQ10. So people who are deficient, methylen blue helps them with that. this is why they want you to take Coq10 if they ever give you a statin because part of how statins destroy mitochondria is by stripping them of Co Q10 and so then they can no longer move the electrons anymore.

so you have to if you're on a statin because it's just assumptive you will be deficient and your mitochondria will no longer work and that's why they get so tired and thats why the lose so much muscle and have a lot of muscle pain and other problems and why it increases a whole other host of problems.

That's because of that. Carnitine, many of you have heard of L-Carnitin let's say but this is its job as part of the structure and it is moving the fatty acids along the membrane.

It's gets known for fat loss because its helps you oxidize the fatty acids, it moves fat, but it is a part of the structure and you're always moving fat and glucose along in there, so you need the carnitine.

And the omega-3's, DHA in particular, is the hardest to get. That is the inner membrane fluidity and the amount of cristae, these folds you have. And so that helps support the electron signaling.

So it's in the outer membrane, not as much as the inside. Most of us, I'm included, don't eat enough fish. I don' enjoy it to get all the Omega-3s from grass-fed beef.

Common SS-31 Mistakes and Dosing Principles

There's some supplements you can take, salmon roe. Salmon eggs are amazing. These are all very high in animal foods, but I still think the way we're living with poisons and toxins and microplastics and seed oils embedded in the membrane so much, you really can't get enough phosphatidylcholine, and I do think supplementation of that one and DHA is usually required by most people.

Body Bio PC and Quicksilver's Membrane Mend are two brands in particular that I like for that. I believe Wizard Sciences also has a phosphatocholene and they're an incredible brand as well.

Alright, so here's some other ways to stack. Just want you to think about this. Minerals are a part of the terrain and I have to do that. Here's my three favorite minerals on the market.

You'll notice you don't see something like element or even salter or something simple that's not just sodium, potassium and magnesium. No. I want the full spectrum.

Kington water is ocean plasma water. Hypertonic is going to have three times the amount of the salt that we find in our own plasma, but it has almost 80 trace minerals that are naturally occurring in the ocean, which are identical in composition, in exact composition of human plasma.

So we come from saltwater and this is exactly what we're used to. Beam Minerals is another brand I really like. Cellcore's CT Mineral is also another one that also has fulvic and humic acid.

So I like these three spread throughout the week. I'd like you to have some every day. If you work out, sweat a lot, if you go in saunas, things like that, you need more than someone else.

But they can be interchanged and you just swap them around. That way you're getting a nice mix of different sources. I don't like trace minerals out of Utah.

They are contaminated. There's many things. If I have it listed, it's probably because I is not a peptide, but it's a compound that helps the cleanup phase.

So I want to selectively remove the damaged mitochondria first. And then I also like to then minerals and the omega-3s and phosphorylcholine, right? I'm dealing with the structure and SS31, I am fixing the structural.

Then bring in MOTC. This is a mitochondrial peptides. It is naturally made by the mitochondrion. Mitochondria open frame. That's what the term tells you what it does.

we make it inside the mitochondria it goes inside, the cell it actually goes throughout the body goes into the plasma

in the blood as well. It is a communication signal and at very low doses 250 to 350 micrograms doing one to three times a week I want to improve communication between the Mitochondria and the rest of the cells so it can communicate with itself better and everything else because if it's not functioning well it is not making enough MOTC either so its barely getting the energy it's whispering instead of having a nice, strong, vibrant voice, much less being able to yell and coordinate it when it needs to.

So I want you to think we're cleaning things up with urolithin A, very gentle mitophagy, get rid of damaged things so we don't start making more of a damaged thing.

Then we fix that structure of what's left over. It's cleaned itself up a little bit. Now we have the best parts leftover. That's what mitophygy is. It recycles and kills things and brings the best parts out to rebuild itself.

And then I've increased the communication. MATC is a peptide that's traditionally thought of for weight loss, known as an exercise mimetic, but that would be at higher doses in the two to five milligram range.

You use things at different doses and they do different things. Okay, please understand that about peptides. These are signals and the dosing will change the signal that you're giving to the system.

All right. So common mistakes with SS 31 starting too high. The literature will say four to 50 milligrams or doses of the research numbers. And most research that's designed is designed to make, to sell you more of something.

and they have to push things to very high numbers to deal with toxicity and know what safety's like in case you don't know, like melatonin has been studied out the yin-yang and it is one of.

Rare molecules that has no toxicity. They cannot find any number to give to anything that will kill it or hurt it. They're like, they can go 10,000 times what it should to a rat and there's not a problem.

That's a variant. Too much water kills you. So the melatonin can't do that and any dose that they could find shows a safety profile that's unheard of.

They always have to do to push the envelope to find out where's our safety point and some things just go on and on. But plus some of it is also designed to take it to extremes and I think then just to sell you more of something.

So the other problem is not assessing daily. You should be adjusting the dose. Too many people want to get stuck in a protocol. It says to do it like this.

SS 31 is one of those you need to respond to it based upon how you are doing with it every day, because you may end up doing the third mistake is using too low a dose for the duration of the cycle.

So you started at one to two milligrams, but you really your sweet spot is six milligrams a day. We're just starting you low and slow to find out what feels best.

what doesn't overspend you, what's too much, then we back it off. And so that's a very big mistake. Now, sometimes you will make that mistake on purpose because finances simply dictate what the dose is going to be.

So I have this much money, I'm going run a 30-day cycle, so therefore the dosage needs to this. Okay, that's reasonable.

Expected Results, Cycling, and Practical Use

That's what we're doing, but we have to understand you might not have the optimal therapeutic response. You'll get some response, But was it the best to be fair to the molecule?

It should be the dose that your body actually desires. But the other thing would be not cycling long enough. And again, That usually from a financial standpoint, when SS 31 first came out a few years ago, it was incredibly

expensive.

like really expensive, would have cost 800 to 1500 a month for somebody to go through a basic low dose kind of a cycle. It has dramatically dropped. it is nowhere near what we were paying for it a couple years ago.

Another problem is not taking any supporting stack molecules, especially the lipids and minerals. So I'm not going to get the same response in somebody who is malnourished, Starving in an active inorexia or something like that.

It's not really I want to feed the system a lot more So it has the bricks and the tar and asphalt to actually get the job done Okay, and I can't just throw SS 31 in there and do a Hail Mary Another problem would be expecting like stimulant like effects people who want they hear energy and again They're looking for a monster energy drink and they're so used to this wired and tired feeling They don't actually understand the other slowing down to speed up eventually.

Would be like poor overall health, just not doing anything before you start with this and thinking this is going to do everything. We do want you to change some lifestyle behaviors, but believe it or not, we're still going get results on this one without doing much.

It's that good. Here's how you can look at it. So days one to seven, you'll notice a subtle energy change, a little bit more stable, better sleep. Day seven to 21, definitely improved endurance recovery.

Days 30 to 60, there'll be a notable shift in how your baseline everything is. It builds up, it's not about spiking it. Now I will say this, we use it very commonly in 10 day runs as well.

So typically you're gonna expect a 30-60 day cycle, but I've used many 10-day cycles because of finances and have gotten very good results with people and I've been very pleased at some of the unexpected outcomes and improvements and reversals of things that we weren't even expecting.

That's not even why we were doing it. You don't need to repeat this very often unless you keep doing a thing that's causing all this damage to the mitochondria.

Again, four to 50 milligrams a day is the common, but I find one to two milligrams today is very powerful for a lot of people, even half milligram for smaller individuals.

I will say this, it sure seems like the more damaged your mitochondria are, aka the sicker, weaker, more fatigued, fragile, plagued more long-standing something has been, the lower the dose the better.

It sure seem like people who do well at 30, 40, 50 mg a day are They are very healthy, they are more like the pro athletes, the Pro bodybuilders, your top one to 3% peak performing physical specimens have ever seen.

They're the ones we end up pushing because imagine there's really not that much So then they're just really going in and fine tuning a little bit versus we have massive mitochondrial damage throughout the system.

We have to go very low and slow and we get a very different response when we go low dose. So as we're a fit person, but like, I didn't feel anything until I got to 10 milligrams.

And if I would get 10mg to a 17 year old. patient with autism, I would spin them through the roof and they wouldn't sleep for two days. So that's not what we're trying to do.

I don't want to make him feel anxious and wired and tired. Most start with a morning dosing, one milligram, but even half doses are often optimal for people with extremely damaged mitochondria.

Typically we do this in the morning because we can have an increase in energy. There's definite justification for low dose, like one milligram before bed in certain populations.

Sometimes we're pushing the mitochondria for repair Monday through Friday. And on the weekend, we'll do lower dose repair items like this at night before bad, along with something like HGH.

So there's variations in how you can do it, but I wouldn't be doing any variations if you're brand new to something and you don't have experience kind of realm of experimenting on yourself and stacking lots of things.

Just an overview of how I would suggest some of the basic dosing would be, but there is variability in this, especially when you do IV phosphatidylcholine, this gives you an idea