Introduction and guest background

I see a lot of 30 to 50 year old guys that are there that are traders and hedge fund guys and there that, you know, they let their but get Ahold of their intellect and they're working themselves to death.

And they got kids and wives that are unhappy because of never home. They're up at 3 a.m. because of international business, etc., and they're traveling and they get all strung out.

And the next thing you know, to get up there to do an Adderall and go to bed, they're taking Xanax and they're drinking and they're all and they say, look, I got to get off this.

I get off this. So I, I have really a fairly robust nad practice where I do a string of five days of nad, 800mg I. V. drip and, and it literally clears the brush in front of them after five days.

This is doctor talks, real talk from real doctors on the issues that matter to you most. Hello. This doctor can't hold talks with another episode. Today we'll be talking with Doctor David Calvo, orthopedic surgeon is going to talk about peptide solutions and orthopedic surgery in musculoskeletal and regenerative medicine.

Doctor David Calvert earned his undergraduate degree in microbiology from the University of Texas at Austin. He completed his master's degree in cancer research at MD Anderson Hospital in Tumor Institute and the University of Texas Graduate School of Biomedical Sciences in Houston.

Very interesting background on completion of his masters, doctor obtained his medical degree from the University of Texas Medical School, Houston. Completed his surgical internship and orthopedic surgery residency at Hermann Hospital Permanent.

He completed his fellowship in sports medicine, arthroscopic surgery, and reconstructive knee surgery at the world famous Steadman Clinic in California and reconstructive surgery of degenerative joints at Princeton, the Margaret Rose Orthopedic Hospital in Edinburg, Scotland.

That's interesting man. You've had a lot of training before coming in the to the Austin area. He developed the Travis Orthopedic Sports and Spine Lakeway Regional Medical Center.

He participated in Sugar Land in the surrounding Houston metro area for over 28 years. He is board certified American Board of Orthopedic Surgery and was a fellow the Marion County Orthopedic Surgeons.

Especially interested in sports injuries and artificial joints, and upper in the lower extremities. He served as a physician and surgeon for thousands of patients, including amateur, collegiate, and professional athletes.

He is an accomplished triathlete, himself, a sports enthusiast and, competing for over 20 years. Pretty amazing. He, his wife, Diane, live in the Austin area, and they have two adult sons and two grandchildren.

Her current passion we're going to I'm asked about this, like, yeah. What made you. He's an orthopedic surgeon. Why? Why would you want to change into regenerative medicine?

And based on many years of study and utilization of regenerative, autologous and allergenic components, including bone marrow, aspirated concentrate, deposit and pan vascular sites, as well as amniotic materials, exosomes and medicinal signaling cells, which used to be called mesenchymal stem cells.

He has developed numerous very successful methods, excellent and sometimes replacement techniques to assist injury and surgical results to replace or delay surgical procedures and spectrum medicine and surgery, and current

research and guidance by regulatory agencies is further focusing attention on treatment efficacy and safety for patients.

That's a mouthful. Additionally, Doctor Cao is a can make sense highly trained in the science of clinical application of human peptide therapy and as member a forum and honored with certification by that organization.

Why orthopedic surgery led to regenerative medicine

He's peptides a standalone therapies and also as combination therapies. So very extensive history and impressive schooling there and welcome. First off first off thank you for taking the time to be with us.

What what made you go from orthopedic surgery to this regenerative medicine? Well, I've I've I've always been intrigued by what we refer to now as the terrain theory.

I trained in microbiology, which is Pasteur's germ theory. But no matter what I did, it seemed that there were there were components that defied the treatment program, that were based upon what I only knew of at the time of the course of disease, which was the germ theory.

And as I became more and more knowledgeable of the fact that no matter how good a seed you have, if you planted in bad soil or bad terrain, it won't do well.

So many of my patients throughout the years were older or were in poor nutrition status, nutritional status. And as I became more and more knowledgeable of this, as I would get a a personal, selfish knowledge of what would keep me healthy and going longer, I began to realize this is applicable to my patient population, and if I made them more optimized that my results would probably be better.

And lo and behold, that is exactly what happened. So did did you originally look into this kind of for yourself, being an athlete, trying to optimize your physical performance?

Of course, as athletes are always trying to get an edge. And, you know, I can remember back in the high school days of using Nutriment, which was a canned protein drink which nobody knew was that, but seemed to make us feel better anyway.

Tastes good. But as we as we moved along and I would say more of a, I would say more of what was, I would classify as a deficit in my performance. As I got older in my 40s and early 50s led to my interest in finding out why I was 45, 48, 49, and in a roaring orthopedic practice.

I could have I could have seen three clinics a day. I had so much business. I was doing 800 cases a year. I found myself not being able to get out of bed in the morning.

I was, what the hell? How could I possibly got a girl by the tail and and and through some experimentation, if you will, with laboratories and such, I realized that I was thyroid deficient.

I was vitamin D deficient. I was testosterone deficient, nutritionally deficient, etc., etc., etc. and I didn't feel like I was practicing too bad a lifestyle, but I mean, that was that was at the point where we were still doing it to Ihop and donuts for breakfast.

Yeah, yeah. And I mean, we all did that. Now you're an orthopedic surgeon here. You're not supposed to be asking these questions, right? Well, it kind of slapped me in the head.

Yeah. See, I think so many people that get into this specialty or whatever, you know, whatever we want to call it, it's easy at all. And I was very evidence based lab, and it was just ingrained.

Anything alternative? You know, I hate that word. Like it's no evidence and. Well, yeah, if you don't look, you don't know. But then when I got sick and found they had nothing for me, and I snuck out and went to these, you know,

those crazy people, I'm like, oh, my God, they're more evidence based than what?

What we're being taught, you know? And the problem is that our brethren, our historical forefather brethren, have what I referred to as a sometimes fatal disease called psycho sclerosis.

It's hardening of the attitude. And and I've never been one of those guys. I was trained in that world, but I'm not of that world. And I've always been looking for better ideas and better suggestions as to what to do to improve my surgical techniques, to improve my rehabilitation techniques.

And one thing that Steadman taught me was, you can do as good a surgery as you want, but if you don't do the right therapy and if you don't start it on time and do it aggressively, your results are going to be subpar.

And the reason I did my fellowship with Steadman, because I read all of his clinics in North America in orthopedics, and I understood that he had a different animal.

He took a lot of these patients home. Phil Mayor Steve, Mayor of sending Nelson, yada yada took them home with him and they stayed in his basement. And the day after their surgery, he did the rehab before he went to work personally. Wow.

So I learned from this man that there was a different way to do this. And so when I built my practice, I built half of my practice as a rehab facility, and I joined.

So I had athletic directors, I had nutritionist, I had nurses, and I had, you know, physicians, etc. in my practice that helped me run this thing. And in spite of that, I burned out.

But I burned out because I wasn't taking care of my health, and I was I didn't know how you and I came from the generation that testosterone causes heart disease and causes prostate cancer.

Yeah, right. Yeah, exactly. And you don't need vitamins. All you need is three squares. Yeah. It's just all you're gonna make is expensive. Urine. Exactly. We've heard that.

That's a that's a euphemism. So. And in fact, now what we know is we want to have spect expensive urine. Yeah. So anyway, to get on with what we came to talk about today, we're gonna run out of time.

The I know you have to go. So. But. Yeah. So you have a PowerPoint and most time we don't. But I do is I'm gonna put the slides up and I'm gonna talk about those things as much as you want to, and then we'll move on.

Okay. Sure, sure. Enough about me and such, it's just that my evolution was like most of our evolutions as a result of something that happened to us or with us.

Yeah. Yep. All right. So my specialization. Specialization is now or or relevant, but not important to the subject. But bioidentical hormone therapy as you know, is very important.

Peptide therapeutics very important. That's what we're talking about today in in bone muscle, tendon, sexual function, sleep issues, hair loss and many others.

The regenerative medicine that I do on a day to day basis that includes PRP, regenerative growth factors, and the FDA won't let us talk about exosomes and and perinatal, some things like that.

They've decided after 30 years that those are dangerous and they need safety studies. Well, I've used them from 30 years and never had a complication.

So, you know, and I'm a blast. That's neither here to there. I can't fight City Hall on that. So I do fat derived and I do PRP and I do bone marrow regenerative medicine stuff because it is grandfathered under the previous generation of rules and regs that orthopedics has been grandfathered into.

Until we get the IRBs and I and everything out of the way. So we actually prove safety and what we already know is safe. Yeah. So the exosomes are now term D secularized growth factors.

Yeah I mean they're they're basically water balloons that come out of the side of cells and they've got all kind of goodies and their care packages, and they have all the crying function in the cell.

They have para crying function outside the cell. And then they have endocrine functions a long way from the cell. Yeah. Can you kind of just take that to a more layperson, just like what an exosome is compared to a stem cell host.

A stem cell can reproduce itself in the right circumstance. And all of our tissues have stem cells, whether they're muscle, bone, brain, heart or kidney, whatever.

And the the essence of aging is, is the deficiency of stem cells and region. And factors. And ultimately death occurs when those regenerative factors fail to keep up with the degradation.

So we no longer we we no longer can keep up the regenerative aspects of our degeneration.

Stem cells, exosomes, and terrain theory

And we fail and we fall apart like an old car just quit. And then on top of that, if we throw that into the into the mix of what happens in the hypothalamus and what happens in the rest of our bodies with peptides and things like that, which is the subject of our conversation today.

These stem cells have the ability to produce, depending on where they are, have the ability to produce peptides and hormones and things like that, whether they're from the pituitary, the hypothalamus, the adrenal gland, the testicle, the ovary, whatever they are, wherever they are, they can produce these these amino acid stacks, if you will, naturally.

And what we've done in medicine now is we've learned how to stack these things synthetically in a way that they mimic biology. And and so the stem cell is the kind of the origin of life, if you will.

It's it's a specialized cell that can reproduce itself and also affect the surrounding cells and themselves by exerting exosomes, which are many care packages, like taking the mini care packages, like taking a rocket to the space station and replenishing the food and the fuel and the oxygen and all the things that go on up there.

These exosomes are excluded from stem cells and are in the milieu of the interest of the intracellular space, or they actually merge with the cell wall of the surrounding cells and actually dump their contact contents into the surrounding cell, just like what happens in the fertilization process of a sperm in an egg that merges with an egg.

And it dumps the DNA contents and starts the beginning of life. I'll just mention because like so many people think of stem cells, they you give them, they go to the area to start growing and place that tissue.

They don't do that. No. You know, some studies show, for instance, they'll induce a heart attack in an animal, whatever. And they'll give stem cells and it helps you parent.

Then they'll give a second set, the same stem cells, but they'll keep them away from the heart so they can't make it through the heart. And the repair is exactly the same.

So they're sending out something to to basically heal that they're not going they're turning into cardiac cells. I mean, the stem cells, not unlike other organelles like mitochondria and such as that they have their own proteins, their own peptides, their own RNA and DNA and everything else.

And what happens is this they don't have the replication. Well, stem cells have replication capabilities, but they really don't. What's a given? Autophagy I mean, genetically, now we do know that there's a difference between

cancer therapy.

All right. So you're diving deep into peptides and longevity on this podcast. And we're right there with you. Integrative peptide stands out trusted by over 10,000 doctors to deliver real results for their patients.

These premium peptides are your key to unlocking vitality recovery and a longer, stronger life. Visit Integrative peptides.com and use the code Pod life for 10% off your first order.

Again, integrative peptides.com. Use the code pod life for 10% off. It's time to elevate your journey starting now. We're talking about you know, basically, you know, the different ways that you practice and and how you got into this and how you got to exosomes.

Yeah. So let's motor through the different our purposes is peptides. But let's talk about the basically the basic cellular components here with. And so exosomes basically are expressions of the of the cell wall with interest say that are components which include nucleic acids and proteins and and various other and sundry things from within the soup of the of the intracellular milieu.

And those things are passed on to either the surrounding extracellular fluids or in fact, merged with and and entered into the surrounding cells. And what we refer to as pair crime and the auto crime means what happens in the cell pair crime, which means what happens near the cell and endocrine happens distant from the cell, like from the hypothalamus down to the testicle.

The hypothalamus is in the brain. So we can actually have three different ways that these things help help themselves. They help the neighboring cells to help disturbed cells and systems.

So exosomes are an expression of a cell. And they can be an and they're almost always an expression of the stem cell from which they are mothered. The industry has been able to to replicate and grow up cultures of of mesenchymal stem cells or medicinal signal cells, if you will, depending on who's terminology use and whether you talking to Doctor Kaplan or somebody else.

But they they those cells then can be milked so to speak. So now can do cow. You keep the cow in the barn but you take the milk to the store. And so the exosome and its contents all the milk and you supply the nutrients and the well-being to the surrounding cells and distant cells via exosomes.

And you never have to use a stem cell to do that. So it's kind of a novel idea now, going back and retrograde back to the concept of giving stem cells.

And we were talking about cancers when we want to replicate in the bone marrow, lymphocytes and leukocytes to regrow the bone marrow that we've wiped out because they had a cancerous, immature cell inside the bone marrow that was going to kill the patient, they got rid of them and then replenish them with stem cells from themselves.

If they were stored at birth, or from a twin sister or from a donor, that's a whole different animal. There are stem cells that can be that are, that we use that are can be derived from virtually any tissue.

And the cells that I've used thus far, started out in the realm of bone marrow because I'm an orthopedic surgeon. I live in bone. So we can extract bone marrow in the operating room when we're operating and actually put that into a fracture or a knee or whatever tissue that we're operating on, whatever's injured.

And it can accelerate the healing process. And is what you said we're not counting on necessarily the replication of those cells that we're extracting and reinserting, whether they're perinatal or autochthonous or perivascular or leopard or whatever they're coming from, it doesn't really matter, because if you tag those things and you if you tag them with a radioactive tracer or whatever, and you really don't find them after more than 5 to 7 days, in rare cases now and then you'll find one in the lungs or somewhere where they set up camp, but they don't reproduce themselves and they won't grow a liver.

But that's not their purpose. What they do is they supply the, the, the substances that are within them by either the cell wall of the, of the stem cell or destructing and spilling its contents, or by existing exosomes or whatever method reveals their contents within.

And those substances go on to make the surrounding tissues more normal. Interestingly enough, they don't really affect normal cells. They affect abnormal cells.

So the cells good. They don't supercharge it. They just go to work on things that are that are not right, and they optimize them. And they can also stimulate that tissue stem cells to then, you know, repair the tissue as well.

That's exactly right. They can reconstitute the wellness and and the use of the surrounding Stem cells in the tissues that are, that are part of the nascent stem cell population in the patient.

And they can supercharge those cells to make them better by by virtue of the supplies that they give them. There are a lot of there's a lot of stuff we don't know yet.

And a lot of this stuff is propositional, if you will. I mean, that's that's medicine. You know, the more you learn, the more you know, you don't know that's that's the problem.

It's the doctors that think they know everything. They're, you know, the ones that know the least are most adamant the right. Exactly. So if we go on to the next level, which is peptides, which are components of stem cells, the, the cellular milieu within the stem cell, the cytoplasm, if you will.

They are they're also exuded outside the cell and form of stem and form of exosomes and also just exported through the cell wall through pores, etc.. Lysosomes or whatever.

And they can be expressed from the thalamus, from the hypothalamus saying the pituitary and turn on components of the pituitary, for example. Let's just use for a minute CJC 1295 with a for Moreland or any of the other growth hormone releasing hormones and growth hormone releasing peptides, they basically can turn back on a, a deficient or slow, pituitary to specifically produce a certain necessary hormone or pro hormone that the body has become deficient of.

We learned very early on that if you take off, take an old man who was 80 years old who died, unfortunately, and you biopsy his brain, take the pituitary gland it up and measure the growth hormone and his brain growth promote, for the most part, is the same amount, quantity wise concentration.

Why is a 21 year old pituitary? But the difference is the releasing hormones, the growth hormone releasing peptides that release that growth hormone are not around.

And they are they don't. Or the deficient is kind of like having a skydiving plane full of paratroop parachute. And you got one guy stuck in the in the door don't want to jump and you got the instructor puts a bone in his ass.

But I've not heard that analogy before. But that mean that's in some. It's more of an orthopedic analogy, but it's it's a concept, a mechanical thing or the chemical thing that they found that if they get a combination or a growth hormone releasing hormone with growth growth hormones and peptide, they get a normal 8 to 10 pulse of pulses of growth hormone a day instead of a plateau that you get by giving growth hormone, which is a much more physiological normal way in the body, knows what to do with that, with it doesn't know what to do with a flat or a decrescendo flat plateau of of growth hormone, doesn't quite know what to do with it and you don't get the side effects from it, etc.

that you do from growth hormone. Yeah, because. You can't overdose. It just stops working. If you try to overdose in it, you use more growth hormone like you inject it in the joints as well.

Or I haven't, I haven't injected growth hormone in the joints because I'm not sure I'd need that. I haven't, I haven't inject I'm not sure that that it, I'm not sure.

It may be. Most of it's done through IGF one.

Peptides for growth hormone and recovery

You know, most work and you and I think they when I was trying to get it I guess was that you know with growth hormone. You look at this in the budget lab.

Lab sends back 95% of the people is normal. So the highest and lowest 2% are considered abnormal. And most of those they take are sick. And so the growth hormone normal is so low that it's crazy.

So that you you go to the doctor, doctor says, oh you growth hormones normal. You know, it's like when you get a d-minus, you know. Same with testosterone.

Yep. And for this, every decade there is lower than a normal range. So and I tell my patients, right or wrong, I think I'm right. But what I tell my patients is my idea is to optimize you to a 35 to 40 year old man or woman for the rest of your life, and I want to do it in such a way that I don't endanger you.

And I know that IGF one, in a, in an elderly patient could potentially endanger them because it could it could promote, carcinogenesis in some people.

So I, I aim at trying not to raise their IGF one, but raise their growth hormone level. And and. I know, you know, I did a review, I did I looked at every single study published up to that point.

Published. I was all no study is ever shown giving growth hormone causes cancer. Well and I love to believe that. But I don't want to give somebody growth hormone and they get a cancer and they end up in some attorney's office and say, you know, it's like there's there's these doctors of medicine.

And then there's, you know, and now I do have a little concern of giving IGF one. I do two. I do tell growth hormone will do will cause, you know, IGF one in a test tubes going to stimulates a growth factor.

It's going to stimulate growth. Now IGF three you know. So we'll make both of those is very anti carcinogen right. So they balance out. But yeah and that's the thing I think with peptides they kind of do a lot of things where like if you just give IGF one you're just going to do it one thing.

You know and I. Think that I think that integrative approach is, is what's much more physiological. It's more what we are. And so if we move on to some of the other musculoskeletal things that I do, I, my favorite cocktail, if you will, for anybody over 35 or 40 that is having some issues or starting to get burned down like I was, is I like I like to give them a growth hormone releasing hormone and peptide that doesn't raise their appetite and doesn't raise it raise their IGF one too much.

And then I like to give them BPC 157, which is a very powerful reconstructive, reparative, anti-inflammatory type of peptide that, you know, Pavlov discovered at the turn of the century.

And, and, and then in 64, whatever it was in the Eastern Europe, they rediscovered it and found a way to synthesize it and stack 15 peptides. And now it's probably one it is one of the most used peptides in the world and probably the safest in the world.

And you can bathe in it and not get sick from it. Yeah. Oh, is that cocktail shaken or stirred? I drink everything straight up. All right. Know it's good like that.

But yeah the VPK, it's just it there's so many things and I give lectures on it and you list everything it does I it's almost embarrassing because it sounds like snake oil.

You know. It sounds like Doctor Hooke's medicine show. Yeah, yeah. But I can tell you, I mean, I'm I'm going to stay on this stuff the rest of my life now for it.

I mean, I'm. Almost saying, you know, the FDA is trying to take all of this away, trying to take hormones away thyroid again. It's crazy. As I say, I'm almost 71 years old.

I function at the level I was when I was 35 or 40. That's great. I feel great and I want to, I want to, I don't I want to stay off the porch. And if you notice how many people feel great at a party, I'm telling you, either you know, someone always comes up to me.

It's either them, they're, you know, a family member or their friend is so sick. And I think 20 years ago, ten years ago, I didn't get that. It's like everyone's sick. And you say, I'm feeling great.

I it seems that's so rare now, you know. Yeah. I mean, it is rare unless somebody is doing something and and there's so few of us that have found that holy grail to where we can work together.

But you still there? Yeah. Yeah. Okay. So, you know, we've we've we found some of the Holy Grail and we're starting work hanging on to it. As long as you didn't take it away from us and we're certainly doing no harm from work.

That's the thing. So when someone has been harmed and if it actually works and is safe, they're more likely to take it away because it's they're the basically enforcement arm of big pharma.

Well, let's shift over to, to the to the thymus peptides, the alpha one and the thymus and beta four. Those are the two predominant ones. And Thomas and Alpha one is more of an immune modulatory peptide and thymus.

And beta four is more of a reparative recovery type peptide. They both work in the brain, they both work on the hair, but they both have a broad, wide spectrum of benefits.

Kind of like BPC. 157 I use, you know, alpha one for much, alpha one for people that have viral syndromes, like my granddaughter got mononucleosis with cytomegalovirus.

I put I put her on everything known to man, the ultimate cocktail. I brought her over here from UTI and put it bedded down for three days at IBS, running with vitamin C, and of course often and and vitamin A and high dose vitamin C, zinc, everything known to man and put her on thymus and alpha one twice a day.

And that girl was flat on her back, moribund within. Within 36 hours she was up, smile and running around. Yeah. It's a program. In 30 countries for everything from cancer, infections.

No, no, no, it what I know about mononucleosis before I knew anything about mononucleosis. You don't get up that quick for tomorrow. Yeah, it kicks your butt.

And and that's the thing. Like how many? I just, you know, it's commonplace now, I think with the peptides. And they saved my life. I see with so many people in reverse, my heart failure and the one when I had it is that it's, you know, what do we have that's so safe and you get so many profound benefits, you know.

I mean, there's to me there's nothing out there that has a blood edge on the backside of a sword. You know, we we we care. We we have the ability to carry sharp knives and we have the and and most of the time our knives are sharp on both edges.

Now, are you using TV for frag? I'm using. Well, now I am. I'll say, well we'll send you something now. But I've got some. But I've been using, I've been using TV for injectable and then just recently started using the, the product at your organization manufacturers.

And then my latest order has the TB frag. And we know we love feedback. So we're going to start an IRB. And because we want to gather data so. Well let me here let me let me just capsules real quickly my protocol for say a orthopedic surgical patient.

I've got 2 or 3 patients right now that are, that are recovering from ACL reconstructions. And I put all those people on TV for on, on, on a VPC. I put them on one of the growth hormone peptides and growth hormone releasing hormones.

I put them on. Now, the only reason I, I don't is if they're in competition or getting out of competition testing because tb4 and the growth hormone peptides are water negative their water back.

So water will not allow you to do that. They're considered performance enhancing. And you can't do that on people are going to be tested both. So you got to be careful. That's a disclaimer.

Does it mean it's dangerous? It means it. You know, it kind of gives you an advantage. They convert a, you know, a, a three month, ankle sprain into a three week ankle sprain.

And I've seen it over and over and over again. Partial rotator cuff terrorists. They're net. That was tissues back. Now they won't reattach the tissues that are pulled off.

And on the other side of the room. But they'll help heal it once you put it back. So. So have you seen really significant reduction in that recovery time?

Well, I mean, let me put it this way. Yeah. The answer is yes. The I don't want to be a politician and dodge the question. The the. Texas. Yeah. The patients the patients that I've worked with have shortened their recovery time significantly to the point that they go in and they're not telling their doctors what I'm giving them because I told them, I said the probably not a smart idea for you to discuss this before with your doc because he's he's going to say, I'm crazy, you're crazy, and it doesn't work.

And he doesn't because he doesn't know anything about it. The doctor doesn't know about it. It's quackery. And I mean, it's, you know, they don't know about it.

They're leery of what happens. They go in or they're going, like you are doing. So well. And the patients come back to me and say, what did he mean by that?

I said, he's just telling you what I told you before I ever told you, we're going to do this. You're going to do better than the average patient. It's not magic.

You're not Wolverine, but it's just going to optimize your system. And so, you know, I've got another guy right now. They're just underwent a wide excision of a of a squamous cell or maybe showing a cell.

He had several large biopsies. And then finally I told him, I said, quit screwing with this thing. Go get the damn thing widely, dissect it and get it out of there, because otherwise you're going to have messed up the brain.

And he's a former TCU football player defensively and big strong guy. You know years ago. He's now 55. But some love cities with these kids with me we have to like drink a tequila so we know each other real well.

Now I totally quit screwing with this. Go tell your your dermatologist to cut this damn thing out and get a wide margin.

BPC-157, thymosin peptides, and healing protocols

And so that's pathologist. And make sure their margins are clear. And he he said that after he went in for his first visit, she says I can't believe how fast your healing.

Well, we know this from the plastic surgeons in the dermatologists that are doing doing elective procedures, and they're doing other procedures for breast reconstructive and things in there.

They're using exosomes, are using peptides, are using all this stuff. And you know, there's some cosmetic

surgeons do that. I haven't found any. Yeah.

Absolutely. Greg I'm watching his name right now. He's, has practice in Cincinnati and Newport Beach and. Said, hey, it makes him look good. You know.

I mean, I think and he does research with it where he does it, it does. So on one side where the one side was out and he does photos. And I've been to his lectures and it is dramatic.

I'd love to see those. Yeah. Yeah, yeah. Because I, you know, I broke my nose. Oh yeah. Skateboard accident and big gash and it was like split open and.

I can't even see it. Now. Yeah. And I swear over night people that was just open. It was like separated. Sure. Yeah. Yeah. Well, I mean, we know BPC one for 57 works in corneal abrasions.

It works in dental scenarios with gum issues. It works in ulcers. You don't want to use the BPC and Tb4 for dry eye works, especially in clinical trials. For that.

It works incredibly well in most of the tissues in the body. So and then just we're kind of run out of time. But from the standpoint of other things that we can do and we can always do a second phase of this if you want to later point.

But 2.0 is that good case of you, which is a triangular peptide that captures copper in the middle. You're sure you're aware of that? Works great as a foam on the hair.

I literally grew back my little bit of a bald spot in the back of my head. Within six weeks. It works great as a cream on the face for minimizing wrinkles.

It increases the dermis, it grows collagen, and it increases the dermis thickness, minimizing fine lines and wrinkles. It helps in terms of breaking away from not going back to orthopedics.

It it really does accelerate though. The actual collagen growth and production in and healing tissues, muscle, tendon and bone. And in combination with tb4 tb4 has a predilection to restore the normal collagen and to diminish the scar collagen so that you don't have scar to deal with in your healing naturally.

Without it really reduces formation of a fibrous tissue or diabetics. They get rid of, fabric, fibrotic kidneys, liver. So reverses that. Now, are you injecting GHB?

I'm do it. Yes, I inject it and I use it topically as well. Okay, well, what kind of dose are you doing? I use about ten units, about one one tenth of a CC, and I sometimes do it twice a day. Okay.

And I guess what turns out the size of the vial. How many milligrams is that? Grams. You're going to. You're going to make me lie here I don't remember.

These are doses like milligram or kilogram. Yeah. And I've yeah, I've gone back and looked at it all and I've looked at the numbers and to the point that I just, I just do it by rote now that I don't pay attention to the dose, but what was I going to say with respect to, oh, with the pharmacist with the fibrosis is you're talking about I can I like to say I'm a keep it simple stupid guy kills principal guy and to for me to understand how this stuff works, I come up with these kind of models of my brain. And.

And when we have a tissue or an injury that occurs, the normal process is, is, you know, it starts out with hematoma and then fiber fibrosis and then alignment and hopefully hopefully collinear bonds between the collagen molecules, etc..

And things line up and they get better over time. And if you're lucky they don't stretch out or they don't lump up and don't form key lines so they don't give you an elongated tendon, a loose drink or whatever.

What we, what we what we know is that for the most part, healing is by natural. What we call either either early primary intention or secondary intention is basically the it's like throwing down pick up sticks, like when you were a kid, you know, you know that game when you have that, those little plastic stick, it's.

Going to be all over the place. You throw them in there, you throw them down on the floor and then you align them well, as is our bodies try to align this stuff.

Hopefully they align and they align side by side, but they don't always they end up sometimes a mess. And so what? What? And I don't know how. I don't know why.

But from a synthetic by to for allows the alignment to occur more in line with the forces to give you a better strong tendon with less scarring, less restricted range of motion, more pliability of the surrounding tendon and muscle.

And I would love to know the research behind that. I just don't know. I haven't delved into this. So we know I love to see her, so I'll send you the research.

I was going to ask you, have you seen people like this hours that get better, keloids and things like that? Is this not our really our population? Like I can say, the studies I this is one of the it's.

Just not something that I have dwelled on. But I know that Greg God dang it. I can remember his name. Greg has dealt with that. And he does biopsies and he does.

He's very scientific guy and he's done all this stuff and I'd love to put you guys together. He's out there with you. He's in Newport and Newport Beach and he could he could have a nice conversation with you the next time you're near one another.

But he's got stuff that shows what both exosomes and peptides and everything else does. Yeah. That's you know, really, you know, I love the stem cells exosomes you know, and like the it's it's interesting that stem cells will secrete tb4 axons.

We'll have that in there. And also TV for skin like stem cells. And that's. That's know that's the other thing is that we know that the, the tb4 is not an extraneous material.

It is a, it's a natural thymus produced and tissue produced hormone or peptide that modulates healing and growth and wellness overall, including post traumatic traumatic brain injury.

I think you and you and Kathleen have communicated and, you know, she treated her own son with two families now for 1084 when he got, you know, got his brain turned to mush with a crowbar out in LA and, and he just I mean, he's back in full classes of doing everything else after she nursed him back to wellness.

And, and then you hear the stories about a complete hair loss overnight. Kid wakes up and all his hair is on his pillow, obviously some sort of autoimmune reaction and to before to the Alpha one and CJC.

I mean, I'm sorry GHQ and all these different peptides regrow a full head of hair and in less than six months to a year. There's just so many slides on that.

Yeah. Basically to tell us right where yeah you lose all all their body hair right. Yeah. It's it's I mean it's crushing to these patients when it happens.

Having a 13 year old kid with his all his hair you know. Yeah. So use other ones of talent. If you get into the million accordance for inflammation or down to sleep or.

I've used, I've used my memory. I used up a tail, I've used cerebral, I said I've used DSP delta slow wave initiating peptide for sleep. And it's dramatic.

One thing I discovered that I finally convinced my mentor, Bill seeds, after about six months to a year that it did raise testosterone levels for men and women.

Oh yes, we've seen it significantly. And argument is because they're sleeping better or it actually stimulates it does. It seems to be both. Well, there's some actual research that shows it works through localizing hormones centrally, and it probably that's probably the pathway.

But nonetheless, I know I gave it to my wife issues. I have a horrible insomnia and and she just absolutely broke out or cystic acne you've ever seen in your life.

And it took me about 3 or 4 weeks to get her levels down. I had to get her off of it. And, you know, no, no testosterone, no nothing. They just totally turn her receptors.

And it took forever. And it was the it was a DSP that did it. Well. Yeah. So she kind of went back to age 14, 16 you or whatever. Yeah. And yeah, I've had because I am a terrible, terrible, terrible sleeper.

And exactly. Yeah, the combination of Delta sleep opti and and either, you know, CDC of Maryland or some sort of growth hormone releasing hormone is just then tremendous.

Makes a huge difference. And there's so many more of them out there. I mean, I've used, Recent more pain illion instead of a battalion. It's it's a shorter peptide than orally available.

I'm not familiar with that one, but I've haven't been in the books in a while. I'm probably losing ground. But the there's so many of others, you know, see like.

And so I see neck and and cerebral. Listen, I've used Finally this revelation, you know, FDA took that away. But it's available orally now, which is shown to absorb with studies on eggs and things like that.

So that's it should be available soon as well. Yeah. And then there was I think in I was using five amino and. And it's talk about your experience with five of you know, because we're maybe able to get that back.

I have limited experience with it because it got busted right at the time. I started using it in patients and myself.

Hair, sleep, mood, and mitochondrial support

But I've had any information from other people. For example, a 40 year old guy that played basketball every day said he took it for six weeks and he increases vertical leap by five inches. Wow.

So yeah, that's, you know, a case of one who knows. Yeah. But yeah, we had it's my height too much. But my system was just basically like I don't want to give too much of mine, but it just change your whole mood.

People with OCD within two days, it's they're they're better. But so it's a mitochondrial peptide. It increases nad into the in the cell. And there's so many trials now with mitochondrial peptides because as your mitochondrial you get older basically slow down everything slows down.

Sure. Well and that's kind of a big part of my practice is, is mood and and depression and things like that. Just as a result of the patients I see, I see a lot of 30 to 50 year old guys that are there that are traders and hedge fund guys and they're, you know, they let their but get Ahold of their intellect and they're working themselves to death.

And they got kids and wives that are unhappy because whenever home, they're up at 3 a.m. because International Business Center and they're traveling and they get all strung out.

And the next thing you know, to get up there to do an Adderall to go to bed, they're taking Xanax and they're drinking and they're all and they say, look, I got to get off this.

I get off this. So I, I have really a fairly robust nad practice where I do a string of five days of nad, 800mg, I be drip and, and it literally clears the brush in front of them.

After five days. Yeah. It's so, so, so you know nad you know, stimulates the mitochondria. Yeah. And, and I like these now with the five amino because you get the five amino blocks of the sensory pathway.

So you get even higher levels. You know if. That's available somewhere. Now it well in my drawer and I go full. But if no if it should be available again.

But I've got a I've got a bottle full but I'm, I'm getting low. The other one is there. See, I know I'm a guinea pig. My own son on know. But my older son, he's 47 and he told me one day he says dad, I it on a smart AC for six weeks now.

He says, I swear to God. He says I am 47 years old. I haven't been this rep since I was 17. Yeah, it's it's kind of amazing that and yeah, we've had in fact, another doctor office has told me it's like probably three weeks in now, but is a diabetic patient and just.

Yeah the they nothing really work to lower human than anyone see. But I'll see in just dramatically drop for him when they when see her triglycerides went from like 600 to 104.

Oh my god. Well I mean I can't I can't take it. Is it nauseating to me. And it creates a welt on my injection site. I don't I don't know why. I don't know, I, I have the same thing.

I'm a big fan of follow up stat and I. Have never tried. It falls down. Yeah. And that's one of the things that seems to work. It works for weight loss and kind of muscle growth, but it either doesn't work at all or works amazing.

We'll get some women come in and go, I got a wedding in two weeks. I need to lose 20 pounds. You know, and it can work very hard to find, very expensive.

But I'm allergic to it. But I also found is that when I was sick. Is that I ended up being, like, allergic to everything. But then when I got well, I wasn't, you know, so it was, I was so mast cell activated her and.

I've got a guy I've got two patients right now that are, that have mast cell activation syndrome. And I wasn't going to mention it, but I will I started experimenting a little bit with oxytocin and then and then with oxytocin being kind of a nesting hormone for relaxation etc..

The immune modulator to it. Is and then I added to that microdosing ketamine. And you know, I, I love the ozone ketamine NAD combination IV. Right. I haven't done that.

I've done I've done nasal spray ketamine microdose with with oxytocin. And I'm telling you, I have a drove of patients that love it. They say it's basically cut out their alcohol use.

It's eliminate nicotine. They don't take any Adderall. They don't take any Xanax and. Say you're using an oxytocin. Oxytocin and ketamine, microdose. And ketamine.

When you say microdose, well, what do you do, pharmacy girl? I again, don't get me lying on the mat on the dose. I, I should remember it, but I don't.

I can send you the details on it, but I have a pharmacy, the compound for me and a nasal spray. They do one spray in each nostril before they go into a social event where they've got social anxiety and they just, they don't pick up a bottle of tequila.

They don't, they don't. They can get by. They're wonderful, they're great. And and we're actually using a lot for pain. And you know, now a lot of insurance companies are not even covering doctors.

They write for an opiate, you know, is what you know, all these people are in pain. And we found these ketamine. They they really come down on their opiates, you know.

That's yeah, that's that's a good thought. And I haven't done that. But there's probably another market for the product. Yeah. A regional pain syndrome. Right. Okay.

And we don't find people abuse it. You know I get some. But I've got one guy that I'm not sure he abused it. It's just he had such a horrible activate activation center SSL activation so that it worked so well.

It was only way he could live. And yeah. I mean yeah. Is that an addiction or you don't want to feel one. So what I did is I cut him off and sent him to Academy clinic.

And so you need somebody to monitor you more closely than I can. Yeah. Yeah. The thing is, it's very safe because you know it. They give it to kids in VR because it doesn't suppress respiratory.

And we had people come in the worst pain. The doctors just leave them. And so the problem is doctors are scared to death. Right. For an opiate. Right. Yeah.

And they send them off to pain doctors and they can't get in for months. And now the pain doctors won't wait for opiates. What's the alternative. They give them like gabapentin and you know but we had also I. V.

with one patient on fentanyl. If I manage a chronic line and was getting stem cells and we gave a, you know, big dose of TV for to see with the stem cells and he goes, my pain's gone. Wow.

Yeah. Wow. Well, this there's a whole lot more of this story. Yeah. And that's and that's the nice thing is they work very well together. They're very synergistic with so many things, and they're safe.

And are safe.

NAD, ketamine, and clinical applications

And that they actually, instead of worrying about giving you something, will protect you from the like overdose of like BPC will protect you from overdose of alcohol of antipsychotics, of Tylenol.

So it's yeah, they're interesting stuff. But one of the thing with respect to BPC is that using it in combination with a corticosteroid, it negates the catabolic effect of the corticosteroid in the tissues.

But allows the anti-inflammatory effect, of course, on the work. So that's a great benefit. Yeah. It's just yeah, I get embarrassed to say how many things it does has been known believe you you know, and I I'm trying to think of I've seeing a side effect.

I mean, we treat some of the patients I. Have seen zero side effect. Yeah. You know, some people I see a little insomnia because it is activating. People say that their brain clears up.

So some people will kind of say, hey, you know, I'm a little hyper, but for 99.99%. Yeah, I mean, you can't overdose on it, you know? Right. Well, I think we've probably used up my time for.

Well thank you. Yeah. They love, you know, getting, you know, all your experience on the ground. You've had a lot of experience. Very interesting story.

How you know we went from the dark side to. And you gave up a lot. Well yeah. I mean I guess. I always say you know, came from the world of being strong as an ox and twice as smart.

And, but I get to utilize all my education in this. Yeah. Yeah. It's like I started anesthesia because I was sick, and I figured anything I could do because it was so exhausting talking to a patient.

And then you get better. No offense. And he has these allergies. And I'm like, yeah. It's, you know, but oh. I'm just so excited about this stuff. And this was a lot of fun.

But it's also a pretty brutal profession. I mean, it takes takes a lot of effort. You know, to an operating room, you know, six, eight, ten hours a day and you're, you're physically active.

And I mean, that's good bad. It keeps me awake. I had an surgeons. I had to stay with. I had to stay in the gym to stay strong enough to do what I did.

And plus, you know, you stayed on. But it does have a negative effect because you're bed over all day long, your ligaments in the back of your neck, back or stretched out.

Your feet hurt, knees hurt. You know, you don't. You don't hydrate enough. So your your your your kidneys go to hell, you know. Yeah, yeah. That's like one of the doctors don't live as long. And think about it.

What job do you have to be so constantly focused for 5 hours or 6 hours? You know. Yeah. I mean, my record was a 16 hour replant and residency. Yeah. That's they wouldn't do that, you know, they wouldn't it be basically, you know, malpractice or whatever airline pilot to do that or.

Right, right. But it was, it was a, it was a sign of strength and victory for you to be that strong and do that, you know. Yeah. Well no. More. So great.

Have a great rest of your day. And I appreciate you taking the time. I think know we got some good information and, you know, kind of from the horse's mouth, nothing.

No, I mean any thing bad, but I just, you know, you kind of gone through the progression and seen it, and and I love it, you know, just, you know, adopting new, new therapies.

And I want. To learn I want to pick your brain and learn more about the science because I, I've had so much of I'm spending so much time digitizing my practice and virtualizing it that I really have kind of fallen off the educational plateau a little bit.

It's tough. Yeah, yeah. Trying to manage and. Manage is is managed was always the hard part. But I've got a good person helping me and I'm I'm getting it back together.

I've got a lot of people that are mentoring me that are already that have already been through it, and it's really helping a lot. So I would like to stay connected with you and, and.

We're going to actually start trainings. So yeah.

Closing thoughts on training and future collaboration

And and really and then there's, there's some other good trainings I can certainly do. But we're going to we're to start some and really just I feel I have to give back because it saved my life.

You know, it's like it's like Lyme. It's like treating Lyme patients. Oh do you do it for the money? No one treats Lyme for the money. And it's like the worst thing you could think of doing because it's tough, but.

It's like a ride. Yeah. Is that I think I, you know. Up to the extent, to the extent that I can contribute to your training and education program, I'd be more than happy to be involved.

Awesome. I love it, I love it, yeah. It's it's I'm tiny. I'm a little disappointed in doctors coming out of medical school that. Yeah, they're just memories.

They don't understand concepts and they just want to show up 9 to 5. And you know, it's it's a different world.

There's no more way of officers. Yeah.

Yeah okay. More physical exams. No, no we learned all that. Well they don't do it now or I can't. But some of go and. Talk to you. So man a thank you so much.

Appreciate you taking time out your I know you're busy. It was great and we'll be talking. All right. Bye. Great. Thank you. Thank you for tuning in to Doctor Talks.

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