

Caspar ([00:00:00](#)):

Worldwide fertility rates are in decline. And if you ask me, I believe this is one of the most imminent and serious threats humans face today. Our guest today contends that nurturing a fully functional reproductive system alongside meticulous aesthetic care, forms the cornerstone of an extended lifespan. He's the scientific director and founder of Austin Biotec, a company that's dedicated to challenging the aging process and extending life. This is the Story of Freudenspanne with Zack Varkaris. Zack, so good to see you again, man.

Zack Varkaris ([00:00:35](#)):

Hi. How are you, Caspar? Good. Thank you. Thank you.

Caspar ([00:00:36](#)):

We, we met in Miami at the Biohacking Expo. And I, I loved what you were presenting there and this concept of Freudenspanne, which as we were joking before, I'm trying to say with a European type of dialect here, and get into my polish roots of saying, instead of Freud and Spani or something,

Zack Varkaris ([00:00:58](#)):

I think, I think America would be Freud and Span

Caspar ([00:01:01](#)):

Freud span Spain. Yeah. In Spain. <Laugh>. Now we just lost viewers there. Who? Sorry. Insulted <laugh>. No, but listen, break it down for me 'cause I really love this idea and this concept, and you're even writing a whole book about it. So what is Freudenspanne?

Zack Varkaris ([00:01:18](#)):

Okay, great. Thanks. Well just, I'll take a step back. Freudenspanne is def I'll give you the definition, then take a step back from that about where it came from. So, Freudenspanne is defined as the quantitative effects emotions have on the biomarkers of aging. And in simplistic terms, that's a way that sounds very technical. But fundamentally, why do people die of a broken heart? Or do they die of a broken heart? And or why do, why do people's hair turn white overnight? Why is it when you feel great? You look younger? How many times have you had a couple of drinks and you're feeling great, and someone says, you look fantastic. You're like, I haven't slept all night and I've been drinking all night, <laugh>, but you look great. Why is that? Right? Obviously, it's not sustainable, but that area. But, but the, there is a reason, and that is the thing that we looked at and, and our background as biologists and, and the team that created this.

Zack Varkaris ([00:02:13](#)):

So I am the founder of, of Austin Biotec, but I'm technically, I'm the co-founder. There's another founder Deborah Phillips as well who's a college roommate of mine, college friend of mine as well. And we've got some interesting stories together that we've done. But we, we there's a whole team of us behind this. And what it is, is that, is that when we're looking at procedures about keeping people healthy, and, and, and well, we discovered about emotions, and a lot of health and wellness is very male driven. It's very tech broad driven, how big your muscles are, how many inches you've got, yada, yada. And it's like, well, it's, there's two halves to the spectrum. There's men and women. I, I, I know that's sort of, you know, a very old fashioned way of saying things, but it, it, they are two halves of the, of the, of the, of the circle.

Zack Varkaris ([00:03:05](#)):

And they do have their individual strengths and weaknesses, and they compliment each other. They, they're not equal. They're complimentary. And so we've looked at it from a far more female driven perspective, which I can tell you, I thought I was in touch with my feminine side until I actually delved into this. I, I don't know anything <laugh>, nothing at all. You were quickly corrected, <laugh> quickly. Like I, I was quickly brought that chopped down at the knees, I tell you. But, but it, it's so, so that's basically where it came from. And, and it, it stemmed Freudenspanne. And when we were looking at extending lifespans and health spans, and, and we obviously decided that this is no emotions involved in it, because again, that we have a saying in Greek, if I don't drink or smoke, I will live to be a hundred. I'm not gonna tra I'm gonna do the translation, but if, even if I don't, it will feel like it.

Zack Varkaris ([00:03:58](#)):

Now, I'm not saying that drinking and smoking is a good thing, but it's that relaxation. Mm-Hmm. <Affirmative>. And when you look at things like the blue zone diets and the blue zone areas, which we were talking about, and, you know being a, a Greek, albeit with an English accent, but a Greek <laugh> from, from Crete and, and from the Aria area as well, is that, is that when you look at the long livers around the world, they have three things in common. The first thing is regular moderate exercise. Mm-Hmm. <Affirmative>. The second thing is social networks. And they, and they have the idea now, it's a, it's a double-edged sword living in the village. They all know your business. But also it means that when you're in trouble, you've got support. Yes. And as we age, our ability to resist trauma is the wrong word.

Zack Varkaris ([00:04:50](#)):

Resist change can be diminished. If you don't use it, you lose it. And then the third thing is believing in something greater than yourself. Whether it's God, Jesus, you know, buddha, whatever it is, you know Gaia, Yahweh, I dunno. But all of those things, it's something greater. We're not top of the tree. Those are the three things that are common amongst all the long living communities of the blue zones. So let's look at those three points. Okay? Regular, moderate exercise. That's standard. Stay fit, believing in God and believing in social networks. That's not a physical thing. Mm-Hmm. <Affirmative>, that's not a mental thing. That's maybe spiritual, but it's definitely emotional. I mean, there's nothing worse than being betrayed by someone close to you. Right? Think about it. You've been be, I'm sure we all had betrayals by friends or family. And when you have that betrayal, depending on what level it is, it's really painful

Zack Varkaris ([00:05:51](#)):

'Cause it's that person that you trust. It's like, you know, in the Godfather when Fredo, you know, takes out Michael, he is like, you know, what have you done? You know, my, my brother, you know? And so, so that's the thing. And that can affect you. And that aged him, that made him an evil man. That made him mm-Hmm. <Affirmative> become something that he should never have done. And he was wracked by guilt. And then the end, he paid the price. That's a classic story arc. And so therefore, that's where Freudenspanne comes from. But, but to take a step back from that is what we, we, we created. I mean, would you like me to talk about Freudenspanne, or would you like me to talk about the backside of it first? Of how we came about it? Whichever you prefer. Okay. Okay. All right.

Zack Varkaris ([00:06:31](#)):

Okay. I'm giving me choice. That's dangerous. So, so, so, yeah, I know. <Laugh> choice. Go wild. Go wild. Yeah. okay. So the, the thing is, is that when we looked at fertility rates, you're very right. Fertility rates are dropping in this world. Now, there's one school of thought that says, oh, the world is overpopulated, we're a plague. And by a lot of the metrics that you look at in biological terms, that is sort of true, but by the other metric is that we can sustain a lot more people. So there's a very interesting stat. In 2007, we reached what's called the peak agriculture. So it takes 1.7 acres, or 1.7 hectares, I can never

remember now, but to, to, to feed a human being. And as of 2007, there was too many people on the planet for the amount of farmland that existed.

Zack Varkaris (00:07:26):

Mm-Hmm. Now, there are people looking at ways of sustaining food production, but actually we have enough food to produce, to feed a population planet of eight, nine billion. It's not that much of a problem. And we can also go to things like, you know, protein based from the lab meat and yada yada, and so on and so forth. But what's very interesting is we hit that peak point in 2007. We're now 14 years after that point, population's still growing. We have no issue with food. I think there's a very interesting stat about, there's 2 billion people that are obese, and there's 1.7 billion. That's 1.7 billion. That's right. Yeah. Yeah. I saw that recently. But 1.7 billion people are still in starvation. Well, wait a minute. How does that work? <Laugh>, right. Right. Can we, can we even that out? Can we balance that out? Yeah, yeah, yeah.

Zack Varkaris (00:08:14):

So, so when we look at that, we said, okay, f you know, the issue is, is with, with fertility, is that fertility rates are dropping. Now they're dropping for, for three reasons. The first reason is women have more rights and more choice in education. I'm all for that. And it's all great. You know, I brought up by a family of educators, strong Greek women believe you me. It's I'm used to it. It's not a problem. The second thing is the cost of children. Back in the good old days when, you know, you were kids were like eight years old, you stuck 'em out in the field and they made you money. Now they're a sinkhole until they're 25 because they're a college, and you've gotta do this, and you've gotta do that. Right. You know, and you still have them on your health insurance until you're 25.

Zack Varkaris (00:08:55):

Right? So that's, that says a lot, which ironically is the, the time that you actually physically stop growing, which is an interesting age. And this is something we can talk about, about maturity coming later on. The third thing, though, that's not talked about and is the most dangerous thing of them all, is actual fertility rates in men and women is actually dropping significantly. So you and I, on average, I'm not saying you are this person, but just to say, just take statistical average, are firing 50% less live ammunition than our grandfathers were 50 years ago, 50%. Now, there's still a lot of bullets, but that fact of sperm motility is decreasing. You have deformity of sperm, you have increased levels of autism because of the children and so on. And so, and it's not that, you know, we're having children a lot later in life, and this is a very interesting stat with men, which is that when do you think men, I, I'll give you, I'll give you a question. When do you think men are, are at their most fertile?

Caspar (00:10:05):

Ooh, I feel like you gave me this question when we met. I was, I was shocked. I then, I, I remember stating, I, I thought it was actually in the thirties or so, but I'm, I'm now recalling it was later than that.

Zack Varkaris (00:10:18):

No, that was the question I was asking you about strength thirties. Okay. Yeah. Yeah. It's actually, it's actually in your mid-forties, 44. 42 to 44. Now, I find that a very strange statistic because I thought to myself, well, what about drinking and then lifestyle choices? Right? But I, I dunno why that is. I still don't have the answer for that. But with women, their peak fertility is between 20 to 30, right? Mm-Hmm. <Affirmative>, or 20-22 to 30, I think it is, or 22 to 29. It's something in that area. So there is this issues that women are also having issues with. Something called PCOS, polycystic ovarian syndrome. Mm-Hmm. And POF, premature ovarian failure, and also mosaic style illnesses, which are spontaneous illnesses that occur that we regard as genetic, but are not genetic. They're an epigenetic expression, and they revolve around fertility.

Zack Varkaris (00:11:19):

Now, there are many, many, many reasons for why this could be the case. But one of the interesting points about this, about fertility is that having the ability to have children helps you live longer, especially with women. So the varying statistic, again, I'm giving you some statistic moments at the moment, but the average age for a, an American female to go through menopause is around 51, depending on race, it's race dependent. So if you're from Southeast Asia, it tends to be slightly younger. If you are from the Mediterranean countries, and what I call the, the latitude countries. So Japan, North Korea, northern China, Georgia, in, in Asia, and in Europe, sorry, in part former Russia, former Soviet Union Greece, Italy, Spain, those people that live on that latitude tend to have much later menopause rates at around about 52, but on average, it's about 50, 51 years old.

Zack Varkaris (00:12:21):

Across the board, if you go through menopause at 56, 5 years later, you will live an extra 11 years of life, or 13% more life. That's a huge amount. Huge. But why, what, what's, what's the benefit? There's only five species that go through menopause. The other four, by the way, are all marine mammals, whales or dolphins. And, and, and, and snar wars, you know, novels of whales killer whales, which are dolphins and, and porposes. Why do humans do it? No primates do. No monkeys do none of that stuff. Again, that's a story totally in on itself, and you would have to do another hour just to discuss that. So let's not get into it. We'll just accept it as fact. But the fact is, is that if you can delay it, a woman lives longer. Now, the reason is, think about it, what makes us a man or a woman?

Zack Varkaris (00:13:15):

We start off as little babies, and we got little, you know, with little blobs of fat, with 30% fat, with little bits of slightly different, and we differentiate, and men, we get deep voices, muscles, you know, chest hair, et cetera, balls drop, bang. And so we, the idea is we go and grab what we want, and we can use physical violence. And interestingly, we have much more smaller frontal lobes than women until we have children, which is very interesting. Yeah. The second thing is that women, they develop hips, breasts, hair, so on and so forth. And that way they can. And then the idea is we spread our genetics between each other, meiotic reproduction, sexual reproduction. So the things that we classify as attractive are all related to sexual reproduction. Now, you might prefer blondes or brunettes, or tall or short, or, you know, whatever, but we all agree what's healthy.

Zack Varkaris (00:14:09):

We all agree that's healthy. You know, you look at someone and they don't look right, Ooh, they don't look a bit weird. And if you are discussing whether you like this person or not, you're discussing minutia, and that's preferences of what you find attractive. But it's all very similar things, right? So the things that make us attract make us healthy are our sexual functions, our endocrine system, right? So, would it not make sense that rather than trying to, as you age, prop up your breasts or give yourself more less brain fog, or thicken your hair with some finesser aid, would it not make more sense to actually keep your body in that loop of being sexually functioning and reproductive? And of course, then we get the question is, well, hold on a minute, Zack, or hold on a minute, dabs. Hold on a minute, Jules, how do you make this work? How do you, how do you keep, how do you keep this into a you? Gil, what about telomeres? What about aging? What about this? What about that? Well, okay, let's take an assumption here that you live to 125 years old before your telomeres shut down. So I don't know about you, and I don't actually know how old you are, but you don't have to say it on, on camera, don't worry. You can. Fine.

Caspar (00:15:26):

42. I'm good. 40,

Zack Varkaris (00:15:28):

You're 42. Okay, you're 42. Okay? So, oh, that's a good age. 42. I remember that. I remember that one years ago. <Laugh>, <laugh>. So, so, so that basically 42 is like, for instance, I like to see what you like when you're 82 mm-Hmm. Right? Now, if you are the same as you are now when you're 82, wouldn't you be happy about that? Oh,

Caspar (00:15:51):

Hell yeah. <Laugh>.

Zack Varkaris (00:15:52):

Yeah. So everyone's talking about, let's, let's length in our telomeres. Let's do this, let's do that, right? The actual fact, your body is that, think of telomeres as like a leasehold or a right. You have the right to the land for 125 years, and your body's the building. Mm-Hmm, <affirmative>. Well, I dunno about any, about you, but I've never known a building that needs no maintenance for 125 years, right? So, so the idea being is let's look at before you start to age. Now, let, let's go back to those points of the endocrine system. The endocrine system is one of the fundamental systems of the body that creates functions and regulates metabolism, growth and development, sexual function and reproduction, heart rate, blood pressure, body temperature, and sleeping and waking cycles, as well as your appetite. So the last five that I mentioned are easily maintained by diet, exercise, being, being sensible. You know, not drinking too much tequila on a Friday night, usual <laugh>. Growth and development. Well, you are already fully grown, all right? Let's just accept who you are. You are, you know, you're a white guy, of Polish descent. You're not gonna suddenly become Ethiopian. And you know, it's just not gonna happen. Just accept it. That's just what you are, okay? That's

Caspar (00:17:05):

Very accepting of that, right?

Zack Varkaris (00:17:06):

That just how it is, right? Just take that. But metabolism and sexual function and reproduction are, are, are not controlled by diet and exercise. Now, when do you think your metabolism slows down? At what age?

Caspar (00:17:23):

Oh, I remember this was a trick one that you, you had brought up in your presentation. I, it was late. It was like eighties, right?

Zack Varkaris (00:17:30):

Yeah, exactly. In your

Caspar (00:17:32):

Eighties. I was astonished when I I heard that. Yeah. Yeah.

Zack Varkaris (00:17:35):

It's, it's much later. And so because of that reason why your metabolism slows down is because your lifestyle changes. You hit 30, you're making some cash, you get lazy, you find a girlfriend, you know, you know, suddenly, you know, instead of you going down the stairs walking to work, you can afford to take a, a cab or an Uber or a driver. So you get lazy. You don't, you take the elevator because it goes straight into your condo that you've made money on, and you bought them, right? Rather than going up those

stairs that you used to do. Right? And again, let's go back to, let's go back to the green, the blue zones, right? These people that live in, in, in Greece, in, in a career in Sardinia, in Costa Rica, in Loma Linda, you know, okay, now, whatever, all of these people, what do they do?

Zack Varkaris (00:18:25):

They live in hilly areas. They walk up the stairs, they regularly, they farm their gardens. They do the things that we want for convenience. So that's where your metabolism slows down. Because what happens is, and I, I hate to admit it, I just did a body dexa scan the other, the other day, and, and there's pretty much the same weight as I was, and similar size to what I was when I was 20, 21, 21, 22. I could still wear the same, in fact, I could still wear the same pants. But, but I had been sick recently. I was very, was very ill and had a, I was hospitalized for a little bit, but recovered, but my muscles had gone away. So, although we used to call it in the martial arts game porno fit, you are fit enough for a porno, but you're not fit enough for the Olympics, right?

Zack Varkaris (00:19:15):

<Laugh>, <laugh>, I dunno whether we should cope that one, but in, I have not heard of that one, but makes sense. <Laugh>, anyone who's, anyone who's done Olympic TaeKwonDo or thing like that, or, or some kind of thing like judo, that, that, they'll say that that term. But, but it's, it's like interesting that you look at it and you'll see that you look fit, but you're not truly fit. So think of it in, in a, in real terms, you, your muscles go from fill filets, filet steak to rib eye. So it's the same size, but it's striated with fat. And fat has no metabolic basal rate. It's a storage of energy. It is not a consumer of energy. And so therefore, your metabolism, you're saying, wait a minute, I look the same. How come I cannot eat the same? Because the, it's all happening under the hood.

Zack Varkaris (00:20:02):

Everything's happening under the hood. That's metabolism. So again, that is maintained by lifestyle and, and, and, and exercise and so on and so forth. But the last one that you cannot control fully with diet and exercise is sexual function and reproduction. Mm-Hmm. You can mitigate it, but whether you like to admit it or not as we age are, whether it's for women or men, or testosterone or estrogen levels do decrease it. You know, you do, you do lower it. There are ways to delay it, but at some point, usually around, well, it can only happen from as early as your late thirties, but usually it's in your mid-forties. After that point, you have to start weight of reigniting your system. That does not require, that. You can't just do by just doing certain types of squat lunges to increase the muscles in your, in your, in your, in your size, and therefore release the serotonin and the estrogen and testosterone hormones through your pelvic girdle.

Zack Varkaris (00:21:07):

Right? Right. That it just only has certain limitations. And at that point, that's where you have to control that system and keep it spinning. So you have, you're 40 years old, you're about to hit middle age, or you're in middle aged, but you're about to hit like significant middle age, which is where you are right now. And, and it's, it's a very interesting permit. So you are just at that point where you know who you are, you're happy with who you are, you're comfortable with who you are. You've got skills, you've got knowledge, you've got experience, you've had wins, you've had losses. Great. You know, you are much more at peace of who you are. Yeah, absolutely. And then just at that moment, you're like, holy, everything's falling apart. What the, man? <Laugh> <laugh>.

Caspar (00:21:52):

Well, isn't that life, right? Right. When you feel like you got it, figure it out. It's like, we know



Zack Varkaris (00:21:57):

You don't, right? So what we are doing is we're saying, why don't we give you an extra 20 years? Mm. So where you are right now, I'm not saying I can recommend you drinking bottles of tequila daily, but again, where you are right now, we can give you an extra 15 to 20 years of the vitality and the health that you have. And that is, wait a minute, if the body, now let's go back to the, the, the genetic side. When you look at the genetic side, there are some things in our gene makeup and which show that we, we age more quickly than we should do. There. There was a couple of bits in the, in the, in the genome, and without sort of stating my credentials, if you want, you can talk about those later. But, but in terms of like,

Zack Varkaris (00:22:52):

There are some things that we shouldn't die when we die, we shouldn't fall apart when we fall apart. Especially women. Especially women. So unlike men, it's the one time, actually, I believe that women are less complicated than men. It's the one time, which is that basically there is menopause. It's a very clear breakdown of after that point, women age far more quickly because the things that keep their bones dense so they can carry children or their skin supple so that they don't get injured and get infections whilst they're carrying children or keeps their frontal cortex lobes far more fluid so they can communicate better. Now, communication and comprehension are not the same thing. We talk about communication. Where do we should talk about comprehension? Do you understand what I'm saying? Not, can you hear what I'm saying? <Laugh>, right? It's a big, big difference.

Zack Varkaris (00:23:43):

Big difference. But, but women are definitely more inclined to talk more. You know, you know, when you, when you get a bunch of guys, they sit around, yeah, mate, yeah, sure. Bang, boom. When it's women, it's, they talk a lot more. Now, that is why they're generally in the same way that men are, are stronger. I mean, there's, even if you take a top level athlete, so a prime example with running is Flo Joe ran 110.49, right? A good club run, A male club runner will win that will, will, will smash that record, right? But he's never gonna win the Olympics. In the same way women are far better at interaction language, communication interaction. The men are, we have to learn it a lot later because our frontal cortex are low. So again, we're not equal, we're complimentary. Mm-Hmm. <Affirmative>. And that's what makes us stronger.

Zack Varkaris (00:24:33):

And, and it gives us our strength. So looking at those points, the things that make a woman, a woman after menopause, they start to degrade at a more rapid rate. Now, again, if we can keep menopause from happening, it, it works. Now, we've had a number of patients come to us, or candidates come to us and they say, well, I'm, I'm already two years of menopause. It makes no difference. And we're like, okay, given another year, and you'll start to see things happen. And of course it happens, right? Mm-Hmm, <affirmative>. So we found a way working on the research of two very brilliant groups of people. One is Dr. Professor Al Hand at the University of Chicago, who worked with women on polycystic ovarian syndrome and premature ovarian failure. And he did a pilot study with three women women. Number four is actually one of our candidates now.

Zack Varkaris (00:25:28):

Mm-Hmm. <Affirmative>. And the, and the, there was a good success rate using autologous stem cells. Mm-Hmm, <affirmative>. The other area is the Dr. TI and the Greek fertility community at large, whereby they have taken something called PRP platelet rich plasma. You probably know it more like it's a vampire facial now, but it's the same thing. It's, it's a blood, it's a blood product. And you take the platelet rich plasma and you inject that back into the ovaries. Now, both of them are very valid, but they both have limitations. And, and what we did is we combined the two mm-Hmm. <Affirmative>. So the

delivery mechanism of PRP with the stem cell extraction procedure, which were the little few tweaks, we made it a bit more efficient. And then we added our special sauce, which is platelet poor plasma into it.

Zack Varkaris (00:26:27):

And we've added them together with no foreign material. So in other words, we take your own body, we extract it from your own body, we process it down, we concentrate it. And then we reinject that back into the specific parts of your body at the right quantities that you need to reignite your system. Mm-Hmm, <affirmative>, we don't have a very large sample size. We only have about 111 people that have gone through various stages of the procedure. We have just under 840 that have inquired and are in process. But through that, but we've had an 85% success rate of extending me of extending menstrual cycle or reversing menopause. As I said, we've had that, but again, it's a very small sample size. It's not enough people because one size doesn't fit all. This is the other thing that we've learned is many, a few sizes, say four or five fit 99.999% of the population.

Zack Varkaris (00:27:31):

I haven't got a good, I haven't got a good soundbite for that one yet, but, but it's that <laugh>, it's, that's very interesting. And so that's what we discovered. And then from that, what we discovered was that as we were doing this, we started off with phase one of, of the whole rejuve site procedure. Well, at the time was called EXO therapy, but we, we had to change the name to the trademark issues. And also Rejuve site means a much better because it's rejuvenating a cell as opposed to exosome therapy. 'cause It isn't exosome therapy, it's actually rejuvenating the cells. So that's why the names, it does what it says on the tin. So Reju, when we started off the first area, we discovered that we were giving people, like we were saying before, you know, in the preamble of the pill that you take and the medicine is told you take a pill.

Zack Varkaris (00:28:18):

So they'll come to us, we want to do a procedure, and we'd come along and there we go. And we discovered that hold on a minute. You're 250 pounds, borderline type two diabetic. You've gotta lose some weight and you've gotta stop drinking sodas and not eating ice cream. And then we can discuss next stage forward Mm-Hmm. <Affirmative> forward. And so what we did is we discovered that that was by far the best way to work it. Mm-Hmm. And then with that, this is the thing that really kicked it, is we had one patient and she had incredible results from just a diet and exercise and supplements routine. And again, I was as guilty as everyone else. I'm about, you know, the medicine way I thought supplements was gonna be the big, big one, but it wasn't. It was actually diet and exercise was the big one, right? Supplements is very, very minimized. And in fact, we find that most people reduce their supplement intake with us significantly. Mm-Hmm. <affirmative>. Which is not great for selling products afterwards, but hey, <laugh>, so what we get the job done that's healthy

Caspar (00:29:21):

Is sometimes not profitable, right? Yeah. Well,

Zack Varkaris (00:29:23):

Well, to making you healthy <laugh> well, it is profitable for them and therefore it has a knock on effect, right? So, so then it, it's, what we found was, was that this person had massive reversal of her mepo menstrual cycle, came back after being four years menopausal before we even did the procedure. I'm like, how did this happen? And we started to look at that, discuss it with her. We discovered that she had a very incredible way of mental strength. And then we realized, that's where we realized it was about emotions. Because she had found a way to mitigate her emotional responses to things that she perceived as stressful. And again, I'll give you an example. We, you and I on the street, and we see this person get run over, and you are devastated because this person saved your brother's life. And I look at him going



just desserts, because that person ran over my brother in a, in a, in a, in an accident, in a drunk driving accident.

Zack Varkaris (00:30:30):

Both of our emotions are valid. Mm-Hmm, <affirmative>, there's no right or there's no wrong. They both valid emotions. It's how you deal and interpret those emotions that will affect your body. If I hold hate for that person, it will eat me up inside. Mm-Hmm, <affirmative>, there's no two ways about it. How we quantify that is very hard to do. And this is again, where it becomes very difficult, because by quantifying it, if I say, oh, if you feel good and you manifest this and you believe that, I sound like a, you know, new age snake, old salesman, <laugh> not, not gonna work. What we wanna say is, let's take stay in our lane back to endocrine system. We're looking at sexual function and reproduction. We know that by doing this, we can give you another 11 years of life or 15% more lifespan, and we can increase your, your sexual functional reproduction with men.

Zack Varkaris (00:31:21):

It's not quite as easy. But we can come to that at a, at a later stage. We stick with women. And so we know that we can do that. So we stick in our lane. How do we quantify the effects emotions have on estrogen production, testosterone production hormonal balance. Now, again, this is a very interesting point. When you have when women go through menopause or when men start to age or andropause, we have hormone replacement therapy. So you take estrogen as a woman. Well, estrogen is not produced as estrogen. It is actually produces testosterone. That is then am raised into estrogen. E two estrogen specifically, there's three types of estrogens. E one, E two, three mm-Hmm, <affirmative>. And then you have breakdowns of the different types of OH or methylated groups of estrogen. A little bit technical, but I'm just saying that there's something called the fours, the 16 ohs and the two oh groups, right?

Zack Varkaris (00:32:20):

Of which some are very good for you and some are bad for you. Think of cholesterol, good cholesterol, bad cholesterol. So when you are taking these pills, your body is thinking to yourself with men. It's a prime example with men that take when they r up on their trend and whatever. Yeah. Man, <laugh>. And then, and then the next thing is they stop taking it and they develop breasts because the body says, oh, wait a minute. I haven't got enough testosterone. Oh, we better produce some estrogen so we can amor raise that into testosterone. So we do it reverse waste. And so that's the body. So we're not thinking about the system, we're thinking about biological band-aiding, and how do we play all this whack-a-mole instead of saying, why don't we just make sure the body knows? 'cause It knows how to heal itself. Do you think about how to breathe every second?

Zack Varkaris (00:33:12):

No. Do you think about you just blink three times since we've just spoken? But you think about that blinking. No, you do it naturally. So your body has a way of, within its limitations of 125 years and so on and so forth, it has a way of healing itself. We're just showing or helping that body heal itself. And so again, that's, and so we discovered Freudenspanne. That's what it's about. And again, we've created a, a formula, we've created a, a score out of a hundred, and then we've broken it down into the different markers. So we have things like self-belief, stress, motivation, the genetic markers, hormones, melancholy, which is like sadness. Yeah. Cognitive, physical, cognitive and mental, cognitive and physicality. And they break down into a 12.5% breakdown. And of course, we then have tests that go with it. So you have to have a minimum number of tests, blood work, interview Freudenspanne test.

Zack Varkaris (00:34:14):

But then we recommend if you can, genetic testing, gut biome testing, which is a big one that no one really talks about. Bone density scan, which is pretty straightforward and very essential, and mental, mental scan. And so we then break that down and we can have a figure. Now, obviously, technically a hundred is the maximum you can get, but no one ever gets a hundred because if you have a hundred percent self-belief, you're basically a psycho <laugh>. You, you, you can't be a hundred percent self-belief. There's always got to be an element of doubt somewhere. The question is, where do you draw that line? So we, we look at a roughly a very old school way of marking it. Like back in the day when we were kids doing our exams, you had 80% was an A grade, right? Mm-Hmm. <Affirmative>, so kind of thing, right?

Zack Varkaris (00:35:05):

So it's in that kind of area, 80%, 80 point, 80 points. But of course, again, genetics, you and I will have different genetics. Mm-Hmm. <affirmative>. So being, being of Polish descent of West Slav descent, right? I'm assuming you'll have certain markers that will make you say, if you've got some Viking in you, which probably you do you'll probably find that you are far more immune to HIV contraction, for instance. Mm-Hmm. <Affirmative>, right? Just some, some more points, right? So that will mean that you'll have maybe a more robust immune system. Mm-Hmm. <Affirmative>, I'm just giving some very general terms here. I'm just saying. So therefore, those genetic markers will have a very big influence on what you are doing for maximizing that. Now, if you're Ashkenazi Jew, for instance, you have a much higher rate of getting Alzheimer's inflammation, so on and so forth. Doesn't mean you're gonna get it. Mm-Hmm. It, but it just have to, you have to be aware of it. Sure. Right? And that's what Freudenspanne is about, is understanding your limitations and maxim. And because you're only as strong as the weakest link in your chain.

Caspar (00:36:11):

Right.

Zack Varkaris (00:36:11):

You know, I mean, remember the first day I went to like junior school, I turned up and I had everything. I was my uniform. I went to like one of those English boarding schools and Junior, I had all the, but sort of like suit and everything. My, my uniform. I turned up and I, everything was perfect. And then I sat down at my, at my desk, and I still remember this to this day, you know, I was like, so on my desk, and then I put my hand on, sir, I forgot my pencils besides forgotten my pencils for the first day. So what could I have done? You know, nothing I could do. Right? Yeah. So that, that, that's basically what Freudenspanne is about. And again, it only happened after phase one. So we're now in phase two. As I said, we, we've got two clinics opening, or that one is open already, but the second one's opening very soon in Mexico with the third one actually opening by before the end of this year. So we have three full-blown FDA or Mexican FDA, but that's just as good for burden probably. <Laugh> FDA regulated. Are

Caspar (00:37:09):

They just as corrupt or less corrupt? Which one is it?

Zack Varkaris (00:37:12):

No comment.

Caspar (00:37:13):

<Laugh>,

Zack Varkaris ([00:37:15](#)):

No comment. They, well, I, I, they may be more honest about things that I, I think the problem is

Caspar ([00:37:20](#)):

I would imagine they would be, yeah.

Zack Varkaris ([00:37:22](#)):

I, I think that for a start, the, in some ways in, in this area, particularly in stem cells, they, they, America is very behind the Copa. Very behind. Yeah. And it's this concept, and we're, we're running this as a, as a clinical trial. So we're, we're running it as, even though it's not a, it's not gonna be rec recognized as such, within the US community, we will present the data with all of our data points structured so that it is clearly shown to have the efficacy and, and, and the sort of diligence that's required. Now, what someone does with it, that's fine, but that's what we're doing for phase two, and we're ranking it, ramping it up. So we want to have 800 people go through this. In phase two, we wanna look at, we, after the procedure happens for nine months, we, we look at all the data points and data sets, and we're looking at how to improve it. And so that's, that's where we are. That was a very long explanation for Freudenspanne, but sorry about that. Oh

Caspar ([00:38:20](#)):

No, it, it, it's a wonderful explanation and kind of guides me to, to the next points of this all, because it's obviously a very holistic viewpoint. It's looking at emotions, which are huge. If you know about dramatic new medicine, Dr. Hamer's work, how that works within cancer oncology, emotions are so interrelated, of course, they're interrelated with the reproductive system and with fertility. Now you also have things like your lifestyle that you're addressing, and then you're utilizing these things that we already have within us that are healers, such as stem cells, P-R-P P-P-P, that is the holistic viewpoint that you are going about. But most people who are dealing with anything that is fertility related know IVF is the only way to go. Right? It's, it's, that's, that's our kind of, you know, gold standard that everyone runs to, or the freezing of the eggs, IVF, all these things that, that we believe are, are the ways, as we extend our lives to become more fertile. Can you talk, I, I'm not even gonna ask about your opinions of IVF, but maybe the comparison of this approach that you have with Austin Biotec versus one of that is the invitro. Right. Fertilization.

Zack Varkaris ([00:39:35](#)):

Okay. So for start, the most important thing is what we do is not IVF. So we're not about having children. What we're saying is the ability to procreate keeps you more vital and healthy with, with caveats, you have to screen for cancers. There's certain things we, there are caveats with that without getting into full details, but you have to screen for certain markers and so on and so forth. And some people, we can't, we can't treat all people. But to IVF can you repeat exactly what you were trying to say to me? Again, I wanna just say about that I,

Caspar ([00:40:14](#)):

I would love for you to let the audience know about the difference, right? And again, I, you know, I don't know your opinions on IVF and I don't think we're here to just say it's awful, it's terrible, it's bad. I mean, maybe that's what you think of it, but more about that difference of someone saying, well, I would, like, I was told to go down the IVF route. What is the benefit of going down this route that you are a part of?

Zack Varkaris ([00:40:38](#)):

Okay, so we have a, a candidate coming to us who's exactly in this situation. Mm-Hmm. <affirmative> without getting into details, but she's in, still in fertility bearing age. Her husband is, is in great state shape everything. And they were recommended because she had turned 30 to go to IVF, she didn't need IVF.

Zack Varkaris (00:41:03):

She just didn't need it. Yeah. Now, I'm not saying that technically speaking, after the age of 30, you do lose your fertility, but then saying that there's always exceptions to the rule. My grandmother had her first child when she was 45. Right. You know, that was, you know, that's basically what she had. And, and she had it naturally. So be it. There are some people that are exceptions, but I think there are more exceptions than there are exceptions to the rule, right? So in other words, the, there are, the, the situation with IVF is if in doubt, immediately, let's go to, to drugs and medicine. Yeah. And I think that is a mistake. It's because it's a bit like what's it, what's it? My there was a friend of mine who said that, he said, you're three cuts away from clown face, right?

Zack Varkaris (00:41:57):

When you're doing a aesthetic surgery because you, oh, I, I've got a little problem with my eye and I do this, and then I do a second one and the third one, eh, and like that, right? <Laugh>. And so it's a bit of a, a bit of an, an exaggeration. But the minute you start down that road, there's a very hard way to come back. So fundamentally, the difference between what we are and what IVF is IVF is about, you have a need, a bandaid need having children, we are gonna max out your ovaries, produce these eggs, and then we're gonna freeze them, and then we're gonna artificially inseminate them. And we're gonna do it this way. What we suggest is we're about keeping that functioning system working smoothly. Mm-Hmm. <affirmative>. And so our bo, so you could have rejuve site procedure injected into your ovaries.

Zack Varkaris (00:42:46):

And of course, when you say holistic, I, I, I want to correct you, ours is very specific, okay? So it's not about just vying it into the blood and seeing where it goes, right? We actually adhere at teeth, attach it to specific follicular style or follicular organs, testes, ovaries, skin, as opposed to dle, which is nerves and so on, so forth. Whereby we actually can make a difference in a very specific moment. As I said, we stay in our lane sexual function and reproduction. We're not doing anything else. We're not trying to make you into a, a midget into an NBA player, right? We're not trying to do that or we're giant into a gymnast. It's not gonna happen. Right? It just doesn't happen. This is what you have to stay, right? Yeah. So in, in other words, we can keep your body running as smoothly as possible.

Zack Varkaris (00:43:34):

Now, people have come to us who want to have children and we are very clear, it is not about we, we cannot, we're not, we're not a fertility company. We are a longevity company. A wellness company. But there is a byproduct that can allow you to have children the natural way. And it's a lot more fun, let's be frank. Mm-Hmm, <affirmative>, right? This is me. This is just do the old school way, right? So that thing is great, but we are looking in phase two at ways that we can improve that, that part of it, which is the fertility part. So I'll give you an example. We take a, so when you produce estrogen in the body, it comes from two parts of the body, the ovaries and the surrounding tissue, the uterus and the adrenal gland, and the surrounding tissue. Approximately the split is 60 40 in favor of the ovaries over the adrenal glands.

Zack Varkaris (00:44:32):

And of the 60%, about 40% comes from the ovaries. And the other 20% or 15 depends on, everyone's not exactly the same, but it's very general terms here comes from the ute, the, the uterus. So, or the uterine lining. So when you have something called FSH, follicular stimulating hormone, as you age, your FSH levels increase significantly because it's sitting around doing nothing. 'cause There's no follicles to

stimulating the ovaries. So what we do is we take your stem cells, we process them to the certain size, our special, special mix and special sauce, which again, I'm not gonna go into right now, but just again, it works. And we then reapply that to the correct parts of the ovaries to stimulate the follicles. And when I say we have an 85% success rate, that is what we have an 85% success rate of, of stimulating the follicles.

Zack Varkaris (00:45:28):

What that does is reduce follicular stimulating hormone, FSH down because the, the hormones now being applied to the increased follicles in the ovaries and estrogen or testosterone. But then estrogen is then produced and suddenly there's much better well bit feeling of wellbeing. There's more bo bodily fluids, there's less brain fog, there's better muscular control, there's higher libido, and they just look better. Bang, you know, they feel better, you know that stuff. Yeah. So it's, it's a win-win. That's what we're looking at. Now, the next stage to that, and, and this is the other thing as well, is once we apply, it's a one, it's, it's a one day procedure and it's an outpatient procedure. It does take 90 days to baseline it, and you have to be in being checked on, but you, the actual procedure, it's about an hour in, in a, in a clinic, and you are in and out, you know, you arrive the day before and you leave the day afterwards.

Zack Varkaris (00:46:23):

It's very simple. It's a very lovely, it's a lovely area. And you go down to go, go down to Mexico, it's a great time and everything's taken care of, it's wonderful. Or you can go to Europe too. But anyway, so then we, we have afterwards we monitor you for nine months. But what we discovered was we thought it would only last three to six months. But the level, the higher rated levels of hormones last up to so far up to three years. So we're like, wait a minute, for three years I'm getting the air related levels of hormones. So I don't need to take HRT. Mm-Hmm <affirmative>. And by the way, HRT is takes, he take five times as much, right? Mm-Hmm. <affirmative>. And there's the, the other beauty about this is unlike taking drugs to stimulate the ovaries, there is no long-term damage to the ovaries on the assumption that you don't have cancer markers.

Zack Varkaris (00:47:15):

Right? There are some assumptions again, right? We have to very clear about that, right? So wait a minute, after three years, I can then re-up again a one day procedure and I can last another three years. So let's think about this logically. What did we say at the beginning? Five years longer, you go, later, you go through menopause, you live an extra 11 years. So let's just say we do three sets of three, and it's nine years. Let's, let's keep it very simple and round it up to, to to that. That's 20 years longer of living, 20 more years of life. So instead of you starting to de or start to, to become more decrepit or more aging at the rapid rate in your fifties, you are doing that in your late seventies or in your mid seventies. That's a big, big difference. And if we can improve this much in the last four years of scientific achievement, imagine what we can do in the next 20 years, right?

Zack Varkaris (00:48:12):

Mm-Hmm. <Affirmative>. So, so that's, so but the beauty about this is on the assumption, again, of not having cancer markers on the assumption of having certain genetic things that you don't have. Again, I wanna be very clear about that. We're not, we're not gods, we're scientists. Okay? Mm-Hmm. <Affirmative>. But once you have that, you then can say, we can safely keep you youthful without having damage to the drugs, without having the clown face effect, right? Mm-Hmm. <affirmative>. But you, you're straight out, right? And that's, that's massive because what you are doing is you don't have to take drugs regularly. Now, I, I again, 'cause IVF has a very specific need of having children, but the damage that can happen to taking lots of drugs is you can have excess weight gain. There's hormonal issues, there's hair growth issues. The, the damage you ovaries is that blows them out.

Zack Varkaris (00:49:03):

And, and I'm not, again, I'm not anti IVFI just think that they're working with what they have. And as we know about liability insurance, there's a lot of other areas, and again, this is not me criticizing, this is just me observing, right? So that's the difference between IVF. So what we're doing is we're a precursor to IVF, we can keep you as healthy as possible and you might get lucky and get it done the old fashioned way. You never know, right? Again, that's a very big area. So in phase two, what we're looking at now is one of the, the, the endpoints that we're looking at is egg quality production, but that is not what we're about. What we're about is, as I said, vitality and so on and so forth. So that's the difference. I dunno if that's explained it clearly. Well, that,

Caspar (00:49:49):

That fully explains it. And you know, I, I totally understand that so much of this is first and foremost, based on that area of getting you as optimized as possible and increasing that longevity factor within you that allows you then to avoid, you know, I, I see IVF as that last chance sort of thing. Just like I see a lot of drugs or surgery should be your final, not your starting point. Yes.

Caspar (00:50:15):

And one of the things I know, Zack, is that we've seen it at our center, and I've noticed it in other centers, is a lot of times, especially if someone's already in a condition where they have a chronic disease, if you go through a period of you know, actually healing from that disease and detoxifying the body, the outcome may be that you become suddenly more fertile. And we've seen this where people didn't think they could have children, had something like a Lyme disease or EBV, some infectious disease. There was a lot of toxicity involved. There were on tons of antibiotics, got 'em off, detoxified, eliminated all pathogens became pregnant. Do you feel like that that is a part of you know, the, the, the, maybe the, the treatment protocol? Or is it something you'd look at even with some before they do that to eliminate another factor that I believe is, is a big cause of infertility is biological system doesn't wanna procreate in a very dirty, toxic environment. Kind of goes against it in some ways. So is that a factor you look at too?

Zack Varkaris (00:51:19):

120% <laugh>? Yeah, absolutely. You got it right? Absolutely. And, and, and you, you brought up Lyme's disease which I had there, and I have quite a lot of knowledge with Lyme's disease. We have one patient who had Lyme's disease for years. Who's going through the procedure right now? I, I had, I have a daughter that suffered from Lyme's disease or who's now been tell me now being now being cured of it or, or certainly mitigated. But one of the issues that came from that was, without going into full details, but in terms of how she was treated, and ironically the same initial doctor was for both that patient of mine and, and the and my daughter. And it was interesting, the first thing he was giving antibiotics, well, why are you giving antibiotics? It's a virus. All you're doing is killing the gut biome. And this is a very important thing because antibiotics don't just take out certain bacteria to take out everything.

Caspar (00:52:19):

It's a nuke bomb, right? Yeah.

Zack Varkaris (00:52:21):

It's a nuke, it's a bomb. Nuke bomb. Exactly. That's a great term. I like that one. I'm gonna use that one. Nuke bomb. Thank you.

Caspar (00:52:26):

You, you have my permission,



Zack Varkaris (00:52:27):

Please. <Laugh>. Oh, thank you. I like that one. Good, good. So the nuke bomb, but the thing is about it is that, is that the guts biome is, and again, very simplistically, 80 20%, so 20% of the gut biome in your, in your guts is required for maintaining a very good healthy structure. But when you kill everything and you do it with PICC lines and everything's going because you're worried about secondary infection, you mean secondary infection. You even got the primary infection dealt with first. Again, I understand where this comes from. It's protocol, it's convention. I'm not saying it's bad. I'm saying it's not a one size, it's not a new bomb. It has to be a little bit more, stu a bit more technical than that. Yeah, a little bit more. And, and that's the issue. So when you look at the things with limes, for instance, a prime example is that, is that with a lot of people, there's a lot of lifestyle.

Zack Varkaris (00:53:24):

And I've lived in the states twice in my life. One on the east coast, one on the west coast, and I've lived in other parts of the world. Southeast Asia, obviously Europe, south America. The most times I've been the most unhealthy, I hate to admit it, it was in America on the East coast. And so more on the, and the west coast a bit better, but I'm also a bit more, a bit more aware now. Yeah. And a lot of it is down to, as you say, toxins in the system. Yes. Drinking certain waters that are not have been purified with chlorines or whatever like that is not necessarily the best way to go forward having m and ms that you know, who doesn't love some chocolate, but that blue dial on the m and m or the red one on the Skittles is banned in Europe and that stuff fries you man, it fries you at deep levels.

Zack Varkaris (00:54:12):

And so once you have this chronic fry, you have to reset everything. And that concept of resetting is very hard to do, which is why we have the 90 day baselining. It's exactly for that reason, because it takes at least 90 days for the body to reset. Now there are some people who are very, very, you know, experienced, they're already doing the right diet, the right exercise. So we can fast track them to, within a degree. We still have to monitor them and do the blood work and so on and so forth. But we can fast track it. But most people, if they're coming to us from a standing start, would you go and run a marathon tomorrow without doing any training? Right. Exactly. You'd fail

Caspar (00:54:54):

Miserably, I think. Yeah.

Zack Varkaris (00:54:55):

You wouldn't even get past a

Caspar (00:54:56):

Couple miles you'd lister up after one mile and BC <laugh>.

Zack Varkaris (00:54:59):

Exactly. So that the toxins is very important. And you're right. And that's why we do the gut biome. And again, this is, these are things that we've learned from phase one. We didn't have this in phase one. We didn't have the gut biome, we didn't have the, the bone density scan. We didn't have Freudenspanne. And we've discovered that this massive difference. And for instance, we, we jokingly say that, you know, I wish there was a pill that we could do, that we could produce serotonin in, in 'cause there's a certain biomes that produce serotonin in your gut. So, you know, so food, be the music, food, be the, the food of music, be the food of love, play on, you know, kind of thing. And it's like, it's, it's very interesting

because the, the, the, the imagine if you could take a pill and it would just be like a, a natural, you know, ecstasy tablet and you <laugh> serotonin's flying out, but without damaging your serotonin receptors.

Zack Varkaris (00:55:52):

Right. Which is what antidepressants do. Ssr's, right. They do that. Mm-Hmm. <affirmative>, this is the difference is about the, the way that you mitigate toxins and the way that you maximize the health of the body in a more sustainable way. A more a, a a more practical way. Now yes, we can't sell you a drug for that. 'cause Once we've taught you how to do it, we've taught you how to do it, but you still have to maintain it. And that requires understanding and the, the re-upping every three years. But, you know, as we say, that procedure, once we factored in that if you amortize it to a monthly cost, it's around about 300 bucks a month. Well, 300 bucks a month to keep your health and wellness. That's, that's your gym membership. And a couple of, a couple of a couple of tablets that you've bought on your, your supplements. Boom. Done easy. Yeah. It's not, it's not that expensive. We wanna get it lower, but if we could, but we we're working with what we've got

Caspar (00:56:53):

And it really seems the value is there. And of course anyone that's been through IVF knows it's, it's not a sure thing anyway. And you do have a lot of detrimental effects there. And of course the emotional effects of going through it and having to pay all that wondering, worrying, everything that goes along with it. Now you mentioned that you know, this idea of the therapy itself, the Rejuve site and going through the process is, is wonderful for a natural way of optimizing hormones. Have you seen any clients that have opted to go not the bioidentical hormone replacement therapy route, but tried working with you before that?

Zack Varkaris (00:57:33):

Yes. Yes we have. Okay. Yes, we have again, we have small sample sizes. So again, and, and this is where things like genetics come into play because there are certain genetics that are predisposed to being, we can work with more easily. Right? Mm-Hmm. <Affirmative>. So, but yes, we have the, the issue is that most of the time people are coming to us as a last resort. Right. And so we're now having to say we're suddenly having to dig out, you know, years of, of, of, I think there was one lady at the conference that was sitting there with us. She was, she was asking some questions. Well, I

Caspar (00:58:10):

Remember

Zack Varkaris (00:58:11):

No, no, no, not that one. There was another one. Okay. Not

Caspar (00:58:13):

That one. <Laugh> we're like, oh, I remember her. The

Zack Varkaris (00:58:16):

One that just down herself. I've never met her before. I've never met her before. No. But that, that one was interesting because she's come to us at, at a more advanced age. And it's unfortunate that she didn't come to us five years earlier. We are probably going to have the success that she wants it look is looking that way. But it's been a lot more work. Right. A lot more work. Right. So ideally I think people should look at us as come to us as a first resort. Absolutely. And the other thing about that is, if you come to us as a first resort, it's gonna be a lot cheaper. Right. <Laugh> a lot cheaper. Because we can do things that we

can help you at some point. And this is the thing, we're in the longevity game. So whether you come to us now or five years from now, we don't mind. We, we, we, we wanna make sure we can be the best we can be for you. And to do that, if you come to us as a first resort, we can help you with ways like just doing a full analysis report from us for, for, you know, a few hundred bucks will give you a blueprint of how to live your life for the next 15 years. That's a good value for money, in my opinion.

Caspar ([00:59:23](#)):

Oh, that's a great value for money. Yeah. And, and you're so Right. You know, when you reposition things to the way they should be, I always say what we do here at the center, we're in the business of health optimization. We're trying to get you as healthy as possible. We're not so worried about even the diagnosis and managing your disease because what is that? Yeah. And if you are in the business of longevity, then of course the outcome of going after longevity may be or should be fertility, improved wellbeing. Yes. All of that. Yeah. Yeah, yeah. So it's like, you know, when you, when you shift the, the, what your, your main goal is, everything else falls in line behind it. Yeah, that's true. That's true. And that's where you have that idea of fertility that comes in there. For people listening and, and wondering, 'cause you said it's a one day in out procedure type of thing. Can you go through precisely what someone would experience if they were to work with you?

Zack Varkaris ([01:00:13](#)):

Absolutely. So the first thing is, is that you would come to us, you'd have a, you'd have an initial consultation, and then we, we, we do most, unless they're based in locations where one of our key members is based, which is, which is La San Francisco one in, one in London one in Europe, London. We would have to we have one in Florida now as well, unless they're based in those locations. We do everything by tele, the initial stuff is telemedicine. Mm-Hmm. <affirmative> or, or, or sort of via video calls. So we have an initial consultation and oh, that starts off when we give the sort of layouts of where we can and can't go. If they're happy with that, we then go to a full analysis where we record the calls, we do a full interview. There's a series of set questionnaires they have to fill out.

Zack Varkaris ([01:00:59](#)):

They have to do a series of blood tests. And we then analyze that. And a lot of the information that we get is from speaking to people directly. There's just so many things that are missed on paper that you can see just small details. And we have on, within our team, we have three, three, you know, biologists. We have a doc 1, 1, 1 doctor. We have a, a, a former dancer, stroke, physical fitness therapist. So we have the whole range. And, and none, most of them are all in, in their sort of more advanced age. So they have experiences than the right demographic. So then once they have that and they have the analysis, if they decide to proceed with us, we then go them, put them into the fertility fitness program. And that's 90 days minimum. Now, depending on what you require, it could just be once a month, you know, you speak to us but we give you a series of diet and exercise routines and, and we have like something like a diet, which I actually printed something up to show you.

Zack Varkaris ([01:02:05](#)):

We have like a, a menu that we create like this, you can stick on your fridge with like some background information like that. Mm-Hmm. <Affirmative>. And that, and what that does is it gives you ideas of, of, we have either a plant heavy menu or meat heavy menu depending on what's required. And, and that will give you an idea. We don't say you have to eat this food because that takes away from your Freudenspanne. You are like, if you feel like you're a lab rat, it's not gonna be as much fun. I mean, obviously maybe someone's got a kink for that, but I doubt most people do. Right. <laugh>, you know. Yeah. So, so basically we want to keep it as simple as possible with guidelines, because we're not giving you fish. We're teaching you how to, we're showing you how to fish.

Zack Varkaris (01:02:42):

It's a big difference. Yeah. And so that's the 90 days. And what we then do is then once you get going, we then have to take your exosomes from your blood, which actually takes quite a bit of time because most spins take 30 seconds to two minutes, depending the spins that we have to do with your blood to, on centrifuge spins that is, is about 95 to a hundred minutes. Oh wow. It's huge. And that's for the exosomes? That's for the exosomes. Because we have to, not all exosomes are created equal. And we have to get the right amount, the right way and the right sizes. And then we apply, apply that. So that takes about two to three weeks to do. You have to process it, you have to test it for, for illnesses and diseases. And then we have to have it shipped directly to the, to the, to the clinic.

Zack Varkaris (01:03:32):

'Cause So it's part of that. So that takes about three to weeks in total. Not in, think of it like sending off your passport. It doesn't take long to stamp it, but it, you just getting it back. Right. Right. And then when you, what happens then is you then go once it's all done. And that what the beauty about that is, it's also about the process, about the quality of the service. So you know that you are getting yourself ready. You are preparing for this, for this. And, and rather than you're preparing, 'cause you're going to a hospital and you, you're sitting in a gown and you wait for five days and you come in and out, you are at home and you know that once you start the blood work, you'd have the countdowns coming. So you, you can take it nice and smoothly.

Zack Varkaris (01:04:14):

And then the procedure itself, as I said is a, is a about a one hour procedure. But you'd, you'd go to, depending on the locations where you go to, but you'd fly in to the closest airport. And then you are driven to your hotel the night before. You check in last minute paperwork. You speak to the surgeon you know, so you know what's gonna happen the next day. Mm-Hmm. <Affirmative>. And then the following morning, you arrive at 9:00 AM I say 9:00 AM it could be eight 30, it could be nine 15 <laugh>. But, you know, 9:00 AM you go in and, and you go straight into the procedure. We, we put you into the operating data. We extract your stem cell, we put you under anesthetic, very, as I said, low, low, low inject one setting. We then take out the stem cells.

Zack Varkaris (01:05:06):

Is that from hip bone marrow? Exactly. From the hip bone marrow and it's stem cells. We don't do adipose tissue. It's not strong enough. And we then centrifuge out the right size and the right type of stem cells that we do. It doesn't take long to do. We then mix it together with our, with our other blood products that we have. There is no foreign material, there's no pegs, no polyethylene, glyco, there's no none of that. It's all your own bodily material. Now, on the assumption that you don't have a genetic predisposition, again, this is why we do the testing. Sure. That you, you, you are basically just putting, cleaned up, you know, cleaned up best stem cells that you have right back into your body. And then we inject it into the ovaries, and then that's it. You there, there's two ways that, two surgical procedures that we have at the moment, depending on the clinic, although the clinics are going to have standardized eventually.

Zack Varkaris (01:06:06):

One is the lapar procedure, which is a tiny cut. Mm-Hmm. <affirmative>. The other one is transvaginal, which is no cuts, which is far less invasive. Much better. Well, it's not better. It's just, it's just more, it's, it's more, it's it's more advanced in many ways. Mm-Hmm. <Affirmative>. And we, and that's one we use also. Ironically, it's cheaper. <Laugh> ironically. Well, there's not as much an aesthetic required. So, so that way, and it's also quicker. So that's the one that we, we use. It goes in, you're out and then you, you'll be awake after about an hour. And then you just have a glass of water. And, and then you, you do a

checkout, you go back to your hotel, which is right next door for the night, just in case there's some reaction just in case something's wrong. You are, we're right on call.

Zack Varkaris (01:06:53):

It's right there. And then the following, one, you're free to leave. So technically it's two nights. Mm-Hmm. <affirmative>. But it's, it's a, it's a very simple outpatient procedure. And that's what we do. And then after that, we, you then have an assigned consultant for nine months. And we monitor you for nine months. So every three weeks you do certain blood tests. After four and a half months you do a bone density scan. Mm-Hmm. <affirmative>. And then finally you also do some other gut biome things as well, depending on who you are at the beginning. 'cause A lot of these things are, are dependent on what you start off with. And at the end of nine months, that's it. We don't monitor you after that. You do have access that, we have something called vent box. So what we discovered is, is that every five minutes people are calling us up wanting pieces of stuff.

Zack Varkaris (01:07:46):

And we're like, this is not working. We, we have, you know, we have a team of five to six specialists. We just are overloaded. We just can't cope with that. Yeah. So what we said is, okay, this is what we're gonna do. We're gonna give you event box. You can call up a, a, a number, which is per personalized to you. And you can shout, you can scream down it, you can do whatever you want, <laugh>. And we're not gonna, we all need one. Yeah. We all need one. We're not gonna, we're not gonna properly listen to it because we don't have time. But if we see anomalies in your blood work, which we've discovered with one of our few of our patients, and then we go, ah, and we cross reference to that date. We look at the Ven and we discover that this person's venting about, they, their credit rating was screwed and they tried to buy a car and they couldn't get this.

Zack Varkaris (01:08:32):

And they're like, ah, there's a spike in cortisol. Right. And this is quite interesting. So we, we, not that I'm saying you should be venting all the time, but we have these problems. So there's a lot of little data points that we're collecting that we analyze that procedure afterwards. And so the other thing we have is that we, we are developing, now that we're getting a larger community, it's something called the, well, it's called the wise Women corner. But I will probably change it to the wise people corner for gender equality at some point in the future. But the, the, the point is, is that, is that you, you, you can talk to other people who've gone through the procedure. Now, whether you are the person who's gone through it or the partner of the person who's gone through it, you are obviously only inner circle.

Zack Varkaris (01:09:13):

So it's not anyone. No, not anyone can join it. But you can discuss things once you've been through it. And that's very interesting because it allows you to have a self, self-help group is not the right word, but a, a community based. Now back to what we're saying with aging and longevity and long community's about social interaction, it's about social structure. So that's what we do. So that's the overview of the procedure. So it's not that much in terms of, of being in a hospital, but there's a lot of monitoring afterwards. And there's a lot of preamble to that. And as you know, like we said with the marathon, you don't, it's not just a, the the, you know, it's not just the run itself. It's all the prep beforehand and the, and the, and the, and the, and the prep afterwards, you know, the relaxation afterwards. So that's basically the procedure as is. Yeah. Yeah. No,

Caspar (01:10:03):

Sup Super simple. If you're, you're one day in and out, and it is true that you're going to of course have to do the work before and afterwards to do it. Now, there's another part to this. I understand that you are

completely looking at the longevity of the individual you're working with. But if the goal is for that person to have a child with a partner, what, what role or what are you doing to work with the partner Sometimes? 'cause Of course it's two people, right? That are involved in this process. Women usually get the brunt of the blame, let's say, where a lot of times, as you mentioned, you know, motility of sperm, 50% down, all these things. It's like, men, men gotta take some responsibility for this.

Zack Varkaris ([01:10:44](#)):

Absolutely.

Caspar ([01:10:45](#)):

You know, how, how are you working with that understanding that of course you're looking more on the woman's side of the equation.

Zack Varkaris ([01:10:51](#)):

Right, right. Well, great point. First for a start, we're looking more on the woman's side begin with, because as I said, it's the one time they're less complicated than men the one time. Yes. But it's a very valid point you bring about, about what we call joint decision making. So the first thing we do is, is, is we, if there is that situation, again, we're very clear, it's about longevity. It's not about having children again. But mm-hmm. <Affirmative>, what we do is we say in the initial interview or the initial consultation, if they have a partner, the partner is absolutely free to come on the screen, to come with us, to join in, to be able to speak. And also from our point of view, that gives us better data set points. We understand now, without, again, being specific there are generalizations within certain cultures and communities whereby there are, as you say, women are always given the blame.

Zack Varkaris ([01:11:50](#)):

Right. And it's wrong because it's actually not that true. There is a lot more to it than happens. And again, by them being pressurized by their partners, by their family, whomever, that can have a negative Freudenspanne because your emotion, your cortisol levels go up, cortisol makes you temporarily infertile, et cetera, et cetera, et cetera. So what we want to do is say, listen, dude, chill out, <laugh>, <laugh>, you know, take it easy. And the, the thing is, is that's where it's the, that's actually where it's actually quite useful as a guy to be able to do that. That's great. Because you can say that as a man. So we do look at that very much. So we work with, with a lady who's very, very interesting. Harry Cutie, who's it does the EP C foundation, it's to do with cancer, breast cancer survivors.

Zack Varkaris ([01:12:44](#)):

Remarkable woman, actually remarkable. I introduced you to her, she's fantastic. Mm-Hmm. And Dr. Mina Klu, who does the actual breast reconstruction, and they developed something called joint decision making processes and understanding how you have that. And so we do have with in our team Dr. Manas man g who, who actually works in decision making, joint decision making areas Exactly. For this reason. So the an in very, in a very long-winded way again, sorry, a bit long-winded today. But, but in terms of like the answers, yes, we look at that very clearly, and we're not expecting them to be there all the time. But by us, by them knowing that we are there, they tend to me, tends to relax the situation. So therefore has a knock on effect of reducing that. And also, once or twice we've been asked for the men to be, they've asked us to do the checks on them, their health. Mm-Hmm. <Affirmative>. But one of the issues with that is with, with the men, with the men's side of things, is that there's a lot of areas with regard to fixing men, it's much harder. So it's, it's, it is actually harder. The, the, the there, the, the it's just very, very difficult. But yeah, so, so that's, that's basically what we do. That's, that's how we do it. So we do check into that. Yeah.



Caspar ([01:14:07](#)):

Oh, you know, I, I think it's one of those kind of taboo things that, that men don't like to discuss, that there, you know, could be a problem in this situation. But of course it takes both sides. And you know, it's great that you're of course looking at that joint decision making process and relieving some of that pressure from the woman's side. Now you're expanding, you got new locations coming up. Where, where are the locations right now? If people are interested in wondering where, where this happens?

Zack Varkaris ([01:14:35](#)):

Okay, great. So we have two locations in the North American continent. And I'm assuming that because you're based in New York, we're just gonna talk about the North American continent. Okay. so we have Mexico City. Mm-Hmm. <Affirmative>, Santa Fe and Mexico City. And we have one in Tijuana or ti Tijuana to, to <laugh> to doing in the Freud and span away the

Caspar ([01:14:56](#)):

American Freud, Spain away,

Zack Varkaris ([01:14:57](#)):

<Laugh> Ti Tijuana <laugh>. So we have, we have we have those two locations. And they are both very, very high quality high quality very locations. And ironically at the conference that we, we met at one of the people that was there did, turned out that this, who's now one of our patients, turns out that she worked with one of the clinics. Oh my God, you why sell her? What? Look that? And I was like, yeah. I was like, okay, I'm coming straight away. I worked with him already. I was like, okay. So

Caspar ([01:15:32](#)):

Small world <laugh>,

Zack Varkaris ([01:15:33](#)):

It's a small world. But that's actually great because what that does is it allows people to have, we're cutting edge. We are, again, we are because we're, we're pioneers and both of us are in this area, it's very easy to get chopped down at the knees before you get going. Absolutely. And so by keeping it as quality as possible, as diligent as possible, as professional as possible, it's the best way we can prove that this has real long-term value for, for areas. So in your locations, they're the two Mexico city and Tijuana, we do have others coming on board towards the end of the year, but worry about that when you bring me on again, I'll talk about that.

Caspar ([01:16:20](#)):

Yeah. I know you're busy with two others, but those are the, the two right now. Where do you envision kind of the, the field of longevity and fertility going? Do you see things opening up in the US anytime soon? Or are you just concentrating on what you can do right now? Where, where do you think it's going?

Zack Varkaris ([01:16:37](#)):

Okay, great question. Very good question. It's very hard to overcome the inertia of, of a, of a very large locomotive. And that's what the US is. So rather than try and take it head on, we take it by the side. Mm-Hmm. <affirmative> the beauty about what we're doing is the preamble to the actual procedure is not stem cells, it is fertility fitness. It is hugs routines, which is exercise routines. It is the, the diet and exercise menus. And that is can be done. It's already done in the us. So in that sense, what we believe is where we see the future going is maximizing an understanding and a self-awareness of what you need to

do to keep yourself fit. So in other words, like saying to you, we can give you a report that will give you the blueprint of what you need to do, and it's not gonna cost you, you know, \$50,000 like an IVF or whatever it's gonna be for whatever.

Zack Varkaris ([01:17:42](#)):

It's just a few hundred dollars. And that report will give you a blueprint of where to go. Obviously we have our own procedures that we recommend, but you don't have to do them. And you know what, it's better just to do the diet and the exercise and rather than just try and get everything done so where we actually visit it going forward in the US is the first thing is, is under having the preamble and preparation awareness, improving that, maximizing that, getting that to as many people, which is why I'm starting to talk about it. You know, it's not, it's not my natural though. I've been talking a lot on this one. It's not my natural inclination to talk about this. I just want do it. Sure. The, the second thing is knowing, you know, knowing what is good for you is, is, is half the battle, okay?

Zack Varkaris ([01:18:31](#)):

You've still got to do it, but if you don't know what you're doing, you haven't, you haven't got a hope. Right? So, so that's, it's basically about awareness information. I don't like using the e word education, but should we say the I word informing in inform, informing people. Right. so, so in, in informing people of, of what they can and can't do within limits. And it's layered. For instance, you, the other area I think is very interesting is stem cell freezing. So we talk about using your own stem cells, but you do age Now without getting too in detail about it, those stem cells do age a little bit as you get older, although technically they're immortal, right? So there are some things that happen to it. So it would make sense. I would suggest that banking a bunch of your stem cells at the age of 25, or, you know, I know people should have them when you're born, but you say it's 25, right?

Zack Varkaris ([01:19:32](#)):

Or 35 even is better than waiting until it's 55. There is no harm. And the cost for doing it is not significant. It's, it's not, we've, we've found a, we've done it a way that's very cost effective. Not charging you \$10,000, it's just, you know, a couple of thousand and it's stored and it's safe in different locations in case one of the buildings goes down, you've got two sets, you know, for the redundancy. That's what I believe it's all about. It's about preparing information and being able to have that correct information to act upon it in, in the, in the best way. And that is by far the best way. Because once you get enough people doing that in the us, it will allow you then to say, Hey, to the insurance companies, we have the actuarial sys data to show you we can do this.

Zack Varkaris ([01:20:22](#)):

So can we now bring this on board? I, I do also, but the big issue with the US is the cost. The same procedure that we would do in the US would be three times as expensive for the same. And, and, and it's not because the doctors are being greedy. 'cause They're not, they're just saying, these are my costs, this is my liability costs, these are my insurance issues. And, and, and liability and insurance is terrible. I mean it's, yes, it's, you know, this. Yeah. And that's the big issue. And the only way you can overcome that inertia is having as many people doing it as possible. So rather than trying to structure, everyone goes to stem cells, let's look at the health and wellness aspect and get as many people doing it as possible. And we're working with as many different organizations. So we work with bone scan den, bone density scan company we work with, with genetic, genetic market test people.

Zack Varkaris ([01:21:15](#)):

We're not gonna do our own. I, I mean, I could do your genetic test, but it's gonna be a lot of work. But we interpret them a certain way. And that is the issue. And that's where that, and I think that the growing



Me? Okay, that's a great one. So the reason I laugh is because I, we just got an inquiry yesterday. Well, no, no. What day is it? Thursday. We got an inquiry on Monday, and we responded yesterday. But it was, it was about, I am 35 years old I'm not ready to have children. What do I do? 'cause Technically your fertility goes off a cliff at 30. Again, that's a very big generalization. Right. I, I also think it was interesting 'cause the inquiry came from the, a couple, and I think there was a bit of like reading between the lines. I think that the husband's not ready <laugh>. Right. And he's freaking out. Yeah. And he's not sure what to do. And so that

Caspar ([01:24:08](#)):

Happens too. I mean exactly. That's, it's a common thing, right? Zack? People are putting it all I do myself too. Like everyone does.

Zack Varkaris ([01:24:15](#)):

Right, exactly. Well, well, the, and ironically, it's the ones who, who shouldn't, who shouldn't be who shouldn't be there. We who shouldn't be when disappeared. There we go. <Laugh>. The interesting thing is that what we would suggest is the following. The first thing you need to do if you are in your early, early thirties or mid thirties, even early late thirties, is get a full analysis. And once you have that, you then have information to where to go next. You might think, okay, you might say, because you are right. It takes the fear away. It's like, you know, that moment when you file your taxes. Oh, I've done it. Yeah. It's way, you know, <laugh>, you

Caspar ([01:24:57](#)):

Know, such a relief.

Zack Varkaris ([01:24:58](#)):

Yeah. It's

Caspar ([01:24:59](#)):

A relief. Only 12 months before this happens again, <laugh>.

Zack Varkaris ([01:25:01](#)):

Yeah. But actually, when you think about it, unless you're doing something really sc a scam scammy or something, all you're really doing is, is put it just all ordering information. And what's very interesting about filing your taxes as we're around that time is, is you think about it and you're like, oh, I did X, Y, and Z and it's actually, you suddenly realize, oh, I only did that amount of business, or I only did this, or I did more than I thought. Well, it's actually very good.

Caspar ([01:25:25](#)):

You have to reflect.

Zack Varkaris ([01:25:26](#)):

Exactly. It's a, it's a milestone reflecting point. So our advice to people is get an analysis done, a full analysis, and that will give you a very solid ability to decide what to do next. 'cause It might change what you do. You might say, you know what, I have to accept it, bite the bullet. Now I've got a predisposition to POF or this or that, and whatever it is, I'm gonna have the kid, I'm gonna bite the bullet now. Or you're gonna say, I can get away with this a little bit longer. Or actually, the process itself of doing the analysis makes you feel, Hey, I can do this, we can do this together, or whatever that is. And by the way, I would

recommend that men do this too, but Mm-Hmm. <Affirmative>. But again, and I think the difference, as you rightly point out with men, it's like, oh, you can show no weakness. I'm a guy, I'm, you know, I'm, I'm, I'm mean,

Caspar ([01:26:19](#)):

I'm a guy Gismo. Yeah.

Zack Varkaris ([01:26:21](#)):

I'm like gismo. But women are more more aligned to say, Hey, I, I, I'm weak. And by acknowledging a weakness makes you strong.

Caspar ([01:26:30](#)):

Absolutely.

Zack Varkaris ([01:26:30](#)):

And your frailties. So that's what I do. I'd recommend getting a report and, you know, contact us, we'll help you out. Yeah. <Laugh>.

Caspar ([01:26:37](#)):

Well, speaking of that, how do people contact you?

Zack Varkaris ([01:26:40](#)):

Okay, great. You can go to our website is the best way. Austinbiotec.Com. we do have social media. We are not super big on social media at the moment. We just go to the website, schedule a consult, fill out a document or at least look at the information on the website. And then from there we can get back to you. We'll give you a free consultation and you can decide where you want to produce, produce proceed with that. That's what we would recommend.

Caspar ([01:27:11](#)):

Amazing. Yeah. And Zack, when can we expect your book on Freudenspanne?

Zack Varkaris ([01:27:16](#)):

Ooh, no.

Caspar ([01:27:19](#)):

The spot, right? <Laugh>? Yeah.

Zack Varkaris ([01:27:20](#)):

You put me on the spot now. Well I I, I, I was looking at you on my list is it's to have, it was just to have it done by the end of May, which is not gonna happen. <Laugh>.

Caspar ([01:27:30](#)):

That's coming up really quick.

Zack Varkaris ([01:27:32](#)):

Yeah. We, we have, I would say the actual book will be written by summer, the full actual layout of the book. Okay. But the editing and the structuring of it is gonna probably towards the end of this year, I think. I think what we'll do is, is I'm not speaking at any more conferences until the fall the Autumn. Mm-Hmm. <Affirmative>. And then I'll start to sort of promote the book coming out. But I, I think for us, it's very much a case of what is Freudenspanne. It's a methodology for Exist for Living Life. And it, it's, it's a, it's a, it's a, a lifestyle choice. It's, it is a choice. And we're applying it to one area. So by the, let's say October, October, October,

Caspar ([01:28:16](#)):

I'm gonna hold you to it and have you back on here to talk about the book.

Zack Varkaris ([01:28:20](#)):

Okay. Okay. That's fine. I can do that. I can do that. That, that, that gives me a goal. There you go. October it is, you're done.

Caspar ([01:28:26](#)):

I'm gonna schedule you to give you a goal. Yeah. Really, really make you stress out <laugh>. You're gonna lack Freudenspanne writing about Freudenspanne.

Zack Varkaris ([01:28:34](#)):

No, no, no, no. I won't. You see, that's the whole point because my genetic predisposition is, I, I enjoy the stress. It reduces my cord level. That's understanding yourself to know how it works for

Caspar ([01:28:44](#)):

You. That is data in use. And that is Freudenspanne <laugh>.

Zack Varkaris ([01:28:48](#)):

Exactly, exactly right. Yeah. Well,

Caspar ([01:28:50](#)):

Well, this whole conversation was incredibly Freudenspanne and, and lovely. And yeah. I, I love what you're doing. Keep doing what you're doing. Looking forward to having you back on. And thank you. Thank you for coming on. Thank you very much, Casper. Really appreciate it. Thank you. For everyone listening, be sure to visit Austin Biotec. That's Austin, A-U-S-T-I-N, Biotech B-I-O-T-E-Ci.com for more information. And until next time, continue writing your own healing story.