

Announcer:

Bulletproof Radio: A state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey.

Dave:

Today's guest is a friend who has done a huge amount of work around aging, a guy who is here with me at the Abundance 360 event put on by Peter Diamandis. If you're a long time listener of the show you already love Peter. He's been a guest on the show several times, a dear friend. We're at the Beverly Hilton, actually in my hotel room, doing a live interview and Sergey Young here has been a member for a long time and is behind the Longevity XPRIZE. His goal is to live to 200, so he's making me look like a slacker with my 180, and he wants to bring a billion people along for the ride. Sergey, welcome to the show.

Sergey Young:

Hello, hello, everyone. I'm so happy to be here today.

Dave:

You're investing \$100 million in longevity right now?

Sergey Young:

Right, yeah.

Dave:

Okay.

Sergey Young:

That's what we do and it is for last 12 month we did invest it in at least 10 longevity-related technological companies.

Dave:

Why longevity and why now? I mean, you've run multi-billion dollar investment funds before. This is a small amount of money compared to what you've done in your career.

Sergey Young:

Oh, yeah. Exactly.

Dave:

That's a pretty random change.

Sergey Young:

Yeah, it is. It goes on so many levels, right? The disappointing fact about the people that you need to have a wake-up call to start to take care of your longevity and health.

Sergey Young:

My wake-up call was when I've done a blood test, I had particularly high cholesterol level and they said, "Well, Sergey, you need to take statins." My question was, "Is it one month thing, two month thing or a three month thing?" And the answer is, "No, you don't get it. It's for rest of your life."

Dave:

It's like a subscription plan for internet marketing but even better.

Sergey Young:

It is. Well, funny enough actually, because I'm investor, right, for last 20 years. So I actually went to financial reporting on the company who produced the statins and apparently was the second largest revenue driver for them for many, many years, right? My first education is Chemical Engineering, so yeah. I did a lot of chemical research around that and obviously I decided that, yeah, I'd like to take a different avenue in terms of changing my health. I started to experiment. I mean, not to the way that Dave Asprey does. It's very difficult to reach this level, but change in the diet, doing a lot of exercises, taking supplements, and my cholesterol level decreased by 25% in the course of four month.

Dave:

Without any drugs?

Sergey Young:

Yeah, it just-

Dave:

That's not possible, Sergey.

Sergey Young:

Yeah, it's a lifestyle.

Dave:

Come on.

Sergey Young:

I love it, yeah. So that's my personal stuff. Then I started to-

Dave:

How old are you?

Sergey Young:

Yeah, I'm 48.

Dave:

Okay, so we're about the same age.

Sergey Young:

Yeah, and then I started to share my experience with so many people and what I found is that ... I've consulted just 10 very big guys, billionaires. I've consulted my housekeeping lady, my driver, so for me it's really it was not really important, I'm trying to help with, and apparently I got a lot of followership. I saved so many lives and, frankly speaking, when you got a call saying, "Well, Sergey, we're so happy you pushed us to do this check-up stuff. I got early stage cancer. I'm fully treated now. I'm recovery path, you saved my life." Five, seven calls like that and you're on the hook with longevity, so that's personal perspective.

Dave:

It's true. I was at Nobu last night and the waiter came up at the end of the thing and he said, "Dave, I just have to tell you, my 70 year old grandmother was diagnosed with cancer in her leg and she went all in on Bulletproof, refused to have her leg cut off, did the other cancer treatments, and she's written a book on adventure climbing, and ...

Sergey Young:

Amazing.

Dave:

He's like, "You saved my grandmother's leg."

Sergey Young:

Amazing.

Dave:

But that kind of thing, like you're saying, all it takes, you realize the ROI on changing the angle of someone else's life with knowledge that we already have as a species is kind of a good thing.

Sergey Young:

It is, yeah. It feels really good and the best audience I know we need to move to kind of other pieces around why longevity from business perspective and from society perspective, but the most rewarding conversation I have had, I arrived from a late London Heathrow. It was Monday morning and this whole discussions with border control guys, who can check your passport, "What brought you here?" I'm like, "I'm doing longevity, right? My aim is to change one billion life, people to live 100, at least 100 happy and healthy years." The guy was like, well, this is probably the most extraordinary thing that he heard for the last week. He's like, "Really?" So I end up with doing 15 minutes lecture for the whole shift. So it was like 20 guys they were changing these shifts, so they had extra 15 minutes after their job.

Dave:

That's cool.

Sergey Young:

It was like the most interesting audience I've ever had. I mean it's still 20 guys, but I mean if you can see the hope in their eyes, and realization that so many things that they can change with their health and longevity, it was just amazing.

Dave:

The idea is that everyone wants this and there's this stereotype that actually pisses me off, that it has to be expensive. In Super Human ...

Sergey Young:

Right.

Dave:

My book, everything in there, here's the free version and here's why it works. Here's the free way to effect it, here's the moderate cost way to effect it, and here's what the crazy people who run 100 million dollar longevity funds are doing it.

Sergey Young:

Yeah, yeah.

Dave:

But basically, there are techniques for everything but do you really have hope that the things that I might try, like I did this crazy ozone dialysis thing for immune molecules two days ago. I have needle marks on both arms, because I washed all the blood in my body, okay. Okay, is this going to become something that your uber driver has access to or is there always going to be sort of a tier of these are the aging therapies that you really have to take a month's salary to do?

Sergey Young:

Yeah, so I think there is two aspects there, but before that, spot on the mission of Longevity Vision Fund and my mission is to make longevity and health as affordable and accessible as possible, right? So I think that today in society, we have so many dividing things. So we like almost need something which would unite the nation and nations as well, so I think that longevity and extending our healthy and happy life span, just amazing things. But then speaking about affordability and accessibility aspect of that, in Longevity Vision Fund, the only technologies and companies that we're investing in should pass affordability filter.

Sergey Young:

So we do invest intentionally in something which would provide extremely affordable version of that and there's so many things you can do for free, right? Just coming back to the basics, relying on the capability of your body to self-heal, to eat vegetables, and have an opportunity to like clean all these systems, right, or avoid hormones and other medical stuff, which you sometimes [inaudible 00:07:45]. And people ask me like, do I need to buy, use to meditate? And what I'm saying, human being doesn't need a lot of gadgets actually to stay healthy, right? Just doing the usual regimen there, but having said that, well, let's think about the mobile phones, right?

Sergey Young:

Now like 20 years ago, yeah, I think it was 20 years ago and when we all got this invented, it was like the most expensive stuff, right? It was much more expensive than like an average car. These days, is everyone can have it, so I do think there is certain, very fast progression in terms of affordability of each

technology and even if it start like really expensive there's amazing opportunity in three, five, seven years for this to be affordable and accessible.

Dave:

My career in Silicon Valley has just shown me so much about exponential change and Peter Diamandis, our mutual friend, who's part of Bold Partners, one of the investment firms you work with, they've shown us what exponential change really feels like. Today what I'm doing with Bulletproof for all of the streaming, even the fact that people can watch this video ...

Sergey Young:

Right.

Dave:

I put together one of the first corporate video streaming things over the internet, it cost hundreds of thousands of dollars and this is now free and some of the things that I do with Bulletproof just every month, it's a \$500 of hosting or whatever, I used to write a million dollar a month quote for things like that at the beginning of my career. This is just over the course of 25 years.

Sergey Young:

Yeah.

Dave:

And so I look at that and I say, all right ... These gadgets we're talking about here, you know what, we've always been able to meditate without a gadget, however, the way we did it was we'd say, you 10, usually guys, go sit in those caves for the next 40 years and tell us what you find out and then pass it down to the next 10 guys who'll sit in caves, and eventually we'll get some data, right? So I feel like the gadgets can make it faster, but there's also did you go to see Yes this year?

Sergey Young:

Yeah.

Dave:

So there's a huge number of completely useless gadgets, things that never should have ... They're wastes of human potential and waste of plastic and electronics ...

Sergey Young:

Right.

Dave:

That don't solve any meaningful problem and when it comes to something like meditating, if you can get a 50% better meditation in half the time, all of a sudden there is an ROI on the gadget and with longevity. If there's something you could do and only took you 12 hours a day, and if you just did it every day, and you lived twice as long, would you do it?

Sergey Young:

Yeah, 100%.

Dave:

Well, the problem is all 12 hours of your day are now taken up by doing this thing, I don't know that you would actually want to live twice as long if every day for 12 hours, you had to be in a machine breathing with an octopus on your face, right?

Sergey Young:

Yeah, I'm just crazy about this whole thing, yeah.

Dave:

Would you? You would? So but that's the thing we're going through is like how do we get efficiency, because if you live a long time, you still want to have a life and how do we not waste time living a long time? Are you investing in things that let us live longer, faster?

Sergey Young:

Yeah, I am.

Dave:

Okay, what's an example?

Sergey Young:

Yeah, what's the best way to look at this? There's so many exciting companies that we invested in. So one, think about Freenome, well, that's the company who actually help us to do early stage cancer diagnostic.

Dave:

Is this blood or how does it work?

Sergey Young:

Yeah, so basically they have portfolio of cancers. First they started to work with is colon cancer and colon cancer is extremely invasive procedure. You know, I've been delaying my colonoscopy like for two years, because I'm so afraid of it, and right now they developing almost like a bulk solution. When you just, just a little bit of your blood and then you see, are you in risk category on that one and they just adding up every six to 12 month more and more cancer types there and it's in terms of affordability of that, I mean it's probably going to be, what? \$50, \$100 type of diagnostic tool. So that's amazing.

Dave:

That's incredible, I did and I can't off the top of my head remember the name of the lab test, it tested for nine types of cancer, from blood.

Sergey Young:

Yeah.

Dave:

I ran that, it was a lot more than 50 or a 100 bucks.

Sergey Young:

Right.

Dave:

Because I'm curious, I've done all these regenerative therapies that cause cell growth for youth and cell growth ...

Sergey Young:

Right.

Dave:

And equal cancer, so I passed that with no problems and I did a super high resolution MRI that looks for early detection cancer, there's nothing going on, so this whole idea that you can cycle growth and that you can take care of your mitochondria and the vast majority of cancer are not going to be a problem if your mitochondria work right. It seems to work at least for my little guinea pig experiment of myself.

Sergey Young:

Yeah, yeah, I agree with that, but I think what is exciting is if you catch early, and two killer monsters are, after 50 years old, at least, are heart disease and cancer, right?

Dave:

Yeah.

Sergey Young:

So this is more than 50% of the death, so if you do like really early cancer diagnostic, in today's world, it's 93 to a 100% recovery rates.

Dave:

Depending on the type of cancer.

Sergey Young:

Yeah, obviously, like for majority of the cancer types, so we, like think about 20 years ago, people were delaying the day when they would need ... Whether they have cancer or not, because cancer was kiss of death.

Dave:

Yeah.

Sergey Young:

Not anymore. I mean, we obviously, there's a long way for us to go to fight this completely, but like even last year, six out of 10 top [inaudible 00:13:19] drugs in US was cancer treatment. I mean that's actually

show you how expensive is that but obviously, in a progression for this to be much more affordable and accessible, just another five, 10 years.

Dave:

Something that I think is built into our decision-making networks even the decision-making networks that are outside of our brain, throughout our tissues, we have this short term bias. Because you'll see someone who says, "You know, I'm willing to spend, with my insurance company's help, but ..." and we both have friends with plenty of money ...

Sergey Young:

Right.

Dave:

Who are saying, "I just spent \$20 million solving my cancer because I didn't want to die." So when you're facing a potentially end of life scenario, you just go all in.

Sergey Young:

Right.

Dave:

And so we invest just almost disgusting amounts of money in cancer research, make cancer drugs that are ridiculously expensive, but we spend very, very little on this, "Wait a minute, what if I could just double my life span by taking ..." By the way, for my book, my research, there is no one anti-aging drug you're ever going to take, but there are a lot of things you can do that are going to give you 20%, 30% prevent all these things, without even having to change your lifestyle very much. What is it that drives people to spend a million dollars to cure cancer, but not spend a \$100 or \$1,000 to prevent it? Do you have a thesis on that?

Sergey Young:

Yeah, so there's so many factors. It's similar to a point on like what is the single anti-aging drug. The human body and mind is such a complex thing, right, so we will need to look at the complexity and number of things to do. But one of my guesses is that we as an industry, we still doing pretty bad job in terms of communicating the importance of longevity, right? And for particularly for some reason is obviously, competing with marketing budgets of huge conglomerates, right? Food producers, big pharma, healthcare providers, et cetera.

Sergey Young:

But even like just to change the mindset and have an opportunity to clearly communicate what's the importance and what is the value of adding extra 25 years healthy and happy life, right in the middle of your lifespan. We should do that. Like in every conference, if you ask like who wants to live to a 120 years, you'll get 20% of hands up, right. Well, probably with exception of Abundance 360, that is going to be 100%. So people, it goes so binary about longevity, which is saying, it's either like, "Oh, I mean, I want to live longer," or it's "Longevity, it's so depressing."

Dave:

Yeah, it's fear.

Sergey Young:

It is, yeah. So we need to work with this fear, we also need to show the hope and opportunity there, but also it is about communicating and it is about creating sustainable economic model around longevity and I'm so happy, it's finally, starts to work. Like, corporate longevity programs that I'm doing for free for huge corporations and it's amazing how economically profitable it is for big companies to implement a, to transform a corporate wellness program into corporate longevity program. It's huge retention to all and it feels good and it saves so many hours.

Dave:

So not dying is a retention tool?

Sergey Young:

Well, we all kind of [inaudible 00:16:57] right? And then fear of death is ...

Dave:

It's a big thing.

Sergey Young:

Yeah, it is, yeah. So whether we want it or not, we need to plan it. Because our problem is like we're so positive human beings so we always think like, if I'll stop someone in the street and show like the positive picture. What if you have like 20 years of extra life and realize your dream? It doesn't work for everybody. Unfortunately, it's a combination of fear and opportunity, which should work.

Dave:

One question for you, you mentioned, when you're investing in a longevity company, you pay attention to it and you say, "All right, is this going to be accessible to billions of people? Is the price going to be able to come down?" But do you also have a [inaudible 00:17:45] that says half of your research has to be done on women and some portion of this has to be done on people who aren't white?"

Sergey Young:

This is amazing question. So my story, I was so used to live and work in male dominated environments.

Dave:

The bankers.

Sergey Young:

Yeah ... this is ... Yeah, well, not only, right? But, yeah, I take all the blame for it.

Dave:

I know, [inaudible 00:18:06] Silicon Valley ...

Sergey Young:

So that's amazing stuff. So I've done longevity for like three years and it was all like 45 years old man talking to 45 years old man, until there was particularly kind of ...

Dave:

Well, you have Elizabeth Blackburn and I've had a bunch of anti-aging women on the show.

Sergey Young:

Oh, yeah, yeah, yeah. I mean we have some beautiful women minds working on that but then when you talk about the audience, there was one day and it was just so many women around as I was talking about longevity and like men approach longevity as like, "I'm in." Then when you talk to women, they always have questions like, "What about my reproductive health," right? "What about my sexual life?" "What can I bring to my kids, to my loved ones, to my parents?" So I started, it was striking realization how view on longevity, which particularly like women dimension of that has been neglected for decades.

Sergey Young:

So, okay, so I'm writing now the brief for my new book, which is going to be probably book number two or three, not the first one which will come in the end of this year, about the women aspect to longevity and it's just fascinating, the menopause challenge, right?

Dave:

It's just, it breaks people to the point that the UK's spending \$9 billion on researching how to fix perimenopause because of the effect on the economy.

Sergey Young:

Yeah, yeah.

Dave:

So we will hack that very soon.

Sergey Young:

Exactly, and it's just fascinating and then it's just completely different connection that I now can establish with the women part of the planet. It's just, it's again, think about kids, thinking about parents, reproductive health, and then women, because of the menopause is such a radical change in terms of their aging mechanism. It's not like, you know, testosterone declining for decades, right? They have this shocking experience that we all need to deal with and turn the risk into opportunity. So it was eye opening for me, I'm working on that and it's been long awaited for the planet to be taken care of.

Dave:

Did you see the study about whales with menopause?

Sergey Young:

No, but whales are my favorite one, yeah.

Dave:

What the study showed was that whales had menopause and evolutionary biologists had figured out it was only one species that had this, that the reason that it's built in is wisdom. They found that after the women, the mother whales had menopause, that they were more focused on sharing whale knowledge with their grandkids.

Sergey Young:

Oh, my God.

Dave:

And there are brain changes, you know, my wife Lana is studying a lot of these. We wrote our first book on fertility and all that, and she's working with some clients on this stuff and on her own, frankly. It's really fascinating because there is a cognitive change, there's an energetic change and 80% of women have about five to seven years of just complete, massive symptoms that affect their quality of life. They're not always the same symptoms and 20% of women go through with no problem.

Sergey Young:

Yeah.

Dave:

So the idea is how do we make the 20% the 80% and what I think is going to happen here is what they've discovered in the UK. They can take a small piece of ovarian tissue.

Sergey Young:

Yeah, I've heard about this one.

Dave:

They can bank it and then when you're about to go into perimenopause, they implant that and then you put off menopause by another 20 years. So for my daughter, you bet your ass, when she's 21, I'm going to say, "Do you want this?" And if it's still available and within my means, I'm absolutely going to do it as a gift, because that might be another 20, 40, 50 years of my brain works the way I want it to work.

Sergey Young:

Yeah.

Dave:

We also probably could culture and with David Sinclair's work, we could reverse the biological age of ovarian tissue and then turn some stuff back on and, wow, wouldn't that be cool?

Sergey Young:

It's amazing and what I like about this is just you preserve the optionality, right? I mean it's up to you in 20 year's time, whether you want to do this procedure or not, but by this time, we'll get much more knowledge and experience and ... but isn't it amazing, in like 10 years shift, it gives you then the opportunity to that ... Because we so tend to kind of live on the premise that we all going to live like 65, 75 years.

Dave:

Yeah, screw that.

Sergey Young:

And right now, I think majority of us we'll just to a 100, right? It's almost like we thought about our life as like first 25 years when you can study, growing the kinds and then 25 years of work, and then 25 years of kind of retirement, right.

Dave:

Well, yeah, but most of the retirement is taken up by hospitals and [crosstalk 00:22:40], right?

Sergey Young:

Exactly, yeah, and we're very fragile stage.

Dave:

And that's what most people believe, yeah, it's terrible.

Sergey Young:

Yeah, I was just telling you the story that, yeah, I've done BBC World News appearance, and it was actually apparently it was 110 million people, audience, all around the world, probably the largest, I addressed. Funny enough, they just took a video like really fragile people trying to do exercise in extremely disadvantaged stage to illustrate that. And I'm like, "Guys, you know what, we need to change our stereotypes about aging and don't think about this as a risk but more as an opportunity, in all terms."

Dave:

When we age right, you really won't be able to tell that someone is as old as they are, not because we did a whole bunch of cosmetic procedures, but because they're biologically, pretty similar to someone who's younger. And that means, yes, they might have regenerated some of the support scaffolding in their skin using light or sound waves or whatever, radioactive spiders, I have no idea. But we are getting all of those technologies tested probably including the radioactive spiders, so when that happens, the picture of aging that I want people to take away from the show and from reading my book and, hopefully, your book when it comes out ...

Sergey Young:

Yeah.

Dave:

Is you see the person who's somewhere in middle age, you can't really tell, but they're sitting there in a chair and they're surrounded by grandkids, right, who are actually ... Whether it's their grandkids or not, it doesn't really matter, who are sharing their knowledge.

Sergey Young:

Yeah.

Dave:

That's the gift of aging, that's why longevity for me is so important.

Sergey Young:

It is. It is.

Dave:

It isn't that I want to live forever ... In fact, I'm not sure I want to live forever ... but it's that I want, as I accumulate more wisdom and I accumulate a better ability to disseminate it, then if I can have an extra 40 years of exponential wisdom collection, maybe we can solve some big problems that way? Maybe we can help a lot of people? And a world full of wise people, who have learned how to be kind, learned how to deal with their own shit, frankly, their own emotional stuff, that's the world I want to live in. And this idea that only rich people want to live forever, could you imagine being one of the 20,000 really wealthy people who lives a long time in a castle surrounded by poor people who die all the time, who you can't be friends with because they keep dying?

Sergey Young:

Yeah, of course not.

Dave:

And who all are like want to kill you? Like no wealthy person that I know, no wealthy person that you know wants that future.

Sergey Young:

Yeah, exactly.

Dave:

We will share it to the maximum extent of our ability and also this is the other side of capitalism, people who are wealthy want to be even more wealthy, unless they've signed the giving pledge or something like that.

Sergey Young:

Yeah.

Dave:

So do they want a longevity technology with a very small market or do they want a longevity technology that everyone on the planet can use? It's there's economic reasons to do it, there's sociological reasons and there's selfish reasons and all of them are alignment for longevity. That's why I think we're in the right space.

Sergey Young:

I agree, yeah. I mean that's been amazing and having conversation about to what extent we can and we should extend our lives, it's amazing. I think, immortality aspect is a little bit different. So I'm doing my TEDx Talk, I'm preparing that on Morality of Immortality and I started with like positive premise that we

all going to have option to kind of almost extends our life on a permanent basis. But then when I come back to like, if we can, should we? But that's again, immortality is a separate thing.

Sergey Young:

But I agree, it is the paradigm of aging has changed a lot and we just need to focus on this more and bring the world an opportunity to extend, exactly happy and healthy stage of our life, anywhere between 25-45 years.

Dave:

I want the spoiler. Is it ethical to live, to be an immortal?

Sergey Young:

Okay, so it's very difficult to give like generic answer to that, so I'll just give it straight from my heart.

Dave:

Okay.

Sergey Young:

I don't want to be immortal, right? I think if you take out from human life cycle, the moment of death is we just, we cease to be humans.

Dave:

I love it that you said that, because it's very hard to have life if you don't have death. They're polar opposites.

Sergey Young:

Yeah, exactly.

Dave:

If you remove one of the polar opposite, what's left? I don't know that we know but my real goal isn't live to at least 180, it's to die at a time and by a method of my choosing. Like that is the ultimate freedom.

Sergey Young:

Yeah, it's like Japanese retirement is like you die in the office in the age of 85 years and then full of energy, hopes for the life and with the feeling that you gave so many wisdom and experience and you share it with the new generations, so that's a stand and I agree with you.

Dave:

And I hope that that doesn't offend our transpersonal friends who are so convinced they can upload themselves to the internet. I mean don't you feel like you just pissed off half your friends?

Sergey Young:

No, I mean they love me.

Dave:

I know, same here.

Sergey Young:

I mean, they need someone who are kind of less radical about the kind of life extension, et cetera, but sometimes it can be ... I mean they're so used to it, so like discussing the going through cryogenic procedure, what you can do in this country, you can like work only with your head. You don't need to preserve all your body. For me, it's just still kind of shocking and in the end of the day, and they just too radical, but it's someone need to be the first, right? So if we would not receive this shocking wake up calls, we didn't think, "Okay, I need much more moderate, accessible, understandable, version of life extension, right?"

Dave:

I'm happy they're doing it, because I want to see the science and I think it is going to be necessary for us to learn how to freeze and wake ourselves up, when we're alive ...

Sergey Young:

Yeah.

Dave:

So that we can do things like space travel and whatever ... There's probably a medical for that, but there's some fundamental questions about what is life? Is there such a thing as a soul and reincarnation and half the planet believes in and I don't know. I'm very skeptical that cutting your head off and freezing it, that that's still going to be you when you wake up.

Sergey Young:

You know, I mean, every huge technological advance started with some kind of crazy and sometimes not really working thing, so let's come back to this variant, freezing, menopause delaying mechanism, right? I mean, it has cryogenic component, right? So, you know, I think we just need to accept the diversity of opinions, of views of life and see the positive for all of ... some of the really forward thinking, some of the radical thinking that we can obviously justify and adjust for the mass population.

Dave:

I mean, Aubrey de Grey came on the show and he's, "No, are you kidding, we can totally freeze people," and he really is quite passionate about it and I'm hoping I'm wrong on that front. I wouldn't bet on it right now though, so we shall see. Do you invest in stuff like that? I mean radical stuff?

Sergey Young:

No, no, so we ... We have like three to 5% of our portfolio which is like, we dedicate to the visionary part, so stuff that we're currently looking at is human brain, AI integration, non-invasive form, because I think invasive ...

Dave:

Ah, we haven't talked about 40 years [inaudible 00:30:13] ...

Sergey Young:

Yeah, yeah, look, this is my ... I told you, my dream is actually go through 40 years of [inaudible 00:30:18] program probably in the end of this year.

Dave:

I see.

Sergey Young:

That's one, we're looking at human avatars, specifically, I'm interested in a robotic part of it, so we're currently looking at three Japanese companies because their robotic culture is kind of less shocking and radical for Japanese, rather than for the rest of the world. I mean they're doing some amazing stuff in terms of that and then replaceable body parts, organ regeneration. Just this whole switching from biological view of human body and mind to much more engineering view of that.

Dave:

Okay, it is an interesting perspective and it's got a lot of quantum stuff that we're just figuring out.

Sergey Young:

Right.

Dave:

And a lot of distributed network behaviors throughout our tissues that no one ever thought of, because we couldn't see the signals and now we can ...

Sergey Young:

Yeah, well, that's why arrival of Artificial Intelligence is like extremely helpful here, right? So like half of the that companies we invested in has enormous AI component there.

Dave:

What is the company that you're most excited about right now?

Sergey Young:

Well, it's probably two of them.

Dave:

Okay.

Sergey Young:

If I can cover two, right?

Dave:

Yeah.

Sergey Young:

So one is in Silica Medicine, and this is the guy, yeah.

Dave:

I was an adviser to that guy's anti-aging research portfolio before he started in Silica ... Okay, keep on, I love this Silica ...

Sergey Young:

Yeah, yeah, Alex [inaudible 00:31:35].

Dave:

Yeah, yeah, Alex is great.

Sergey Young:

Amazing guy, beautiful soul, so they've been able to compress the first two or three years of drug development cycle into 45 days. Isn't it amazing, right? And then affordability of drugs, is a huge issue for all of us.

Dave:

And supplements, too.

Sergey Young:

Yeah, exactly, yeah, and he has actually a couple of beautiful supplements because he's done with life extension. I push all the time that he should do collaboration with Bulletproof and with Dave, so we need to come back to that. But he's done some amazing stuff there and with every drug taking \$2.6 billion to develop and like somewhere along 12 years, isn't it insane?

Dave:

Well, isn't 80% of that regulatory burden?

Sergey Young:

Yeah, yeah, so ... If you think about aging and regulation, one of the biggest inflection point that we all going to see in the next five to seven years is recognition aging as disease, so go today to Walgreens. Well, you can go to Upgrade Lab and Bulletproof store ...

Dave:

Come on.

Sergey Young:

They will be welcomed there if you ask like, "Give me something anti-aging," but go to Walgreens and CVS today and ask for anti-aging medicine, they will like, "Are you crazy?"

Dave:

You'll get a one a day pill for old people is what you'll get.

Sergey Young:

Yeah, and they will like, "Ah, we don't do that." And then last person who died in a ... out from aging in US died back in 1951 and right after that, they stopped just recognized aging as kind of reason for that, right? Isn't it insane? This is goes against what we all know.

Dave:

So we can't die of old age anymore, we have to have something else.

Sergey Young:

Oh, yeah, yeah, yeah. So recognition aging as disease will just be the economic model. So think about cancer, the reason why within cancer is \$60 to \$70 billions of R & D money from big pharma, from biotech investors, which is coming into anti-cancer treatment, and it's not a 10, 15 years until cancer will be in the past, you know, I do hope so, but then ... and think about anti-aging and less than \$2 billion a year of crazy optimistic people's money. So as soon as we kind of push through FDA and I'm part of UK parliamentary group, All Nation Longevity Strategy, this is exactly what we're working on, the value of human held data ...

Dave:

Oh, wow.

Sergey Young:

And recognition aging as disease ...

Dave:

Is Tom Watson in there with you?

Sergey Young:

Yeah.

Dave:

Okay, good deal. He would have to be, he's the perfect guy.

Sergey Young:

Of course.

Dave:

Okay.

Sergey Young:

But then what I'm saying is that if you can create economic model for investing in aging, it's going to be not \$2 billion a year, it's going to be ... It's going to be now a \$100 billion a year and we will solve this problem, so that's ... I'm coming back to your question, so what are the most exciting ... so in Silica Medicine and Alex, great.

Sergey Young:

The other one is and it's company called LyGenesis. It's a part of portfolio ...

Dave:

Le Genesis? L-A Genesis?

Sergey Young:

Yeah, L-Y.

Dave:

Oh, LyGenesis.

Sergey Young:

LyGenesis, yeah, so the part of portfolio of company called Juvenescence, we also invested in that, founded by Jim Mellon and Greg Bailey we have so many exciting stuff on longevity front but so what LyGenesis doing is ... Well, think about liver transplantation so it's \$800,000 procedure. We have an enormous queue, like a waiting list of people waiting for donor's liver and it's just not solvable in a current healthcare paradigm. So what they do, they split donor's liver in 50 to 60 pieces and they use endoscopic procedure to put this kind of piece of liver inside your lymph node. So then it's your ... Like artificial or you are kind of liver number two, it's just growing inside your body for in a course of four to six month. Isn't it amazing? And the interesting stuff ...

Dave:

So you're using a lymph node, kind of like a womb to grow your own new liver?

Sergey Young:

Yeah, yeah.

Dave:

That's amazing.

Sergey Young:

And it's like zero autoimmune rejection because your body doesn't think that this is foreign object inside you and it's ... Well, think about what will happen with the cost of this liver transplant.

Dave:

It'll save thousands of lives.

Sergey Young:

Yeah, what the recovery and the quality of life of the patients, I mean that's just amazing and transformational and it's Peter and I go and meet February to visit LyGenesis lab in Pittsburgh, but so I have been there, but some of my academic professionals, team members of Longevity Vision Fund, could travel there for due diligence. This, it was amazing experience and what they had in their life, right, and they've seen a lot.

Dave:

That is ... it's amazing and I love it that this is happening. 20 years ago, when I started this, working at this anti-aging non-profit group in Silicon Valley, it was funded by, in 1993, by one of the three guys who invented ethernet, you know, the networking standard by Gates.

Sergey Young:

Yeah.

Dave:

And it was one of these sort of home brew computer club style things with a bunch of people way older than me, figuring out the anti-aging things that worked and I would not have predicted that we'd have longevity focused investment funds this soon. So you're one of the very leading minds doing this stuff and you've really dug deep on it and what I love the most about it is that you started this by going, "What the hell, you want me to be on these drugs for the rest of my life? What else can I do?"

Sergey Young:

Yeah.

Dave:

You started hacking yourself and once you start doing that, you realize, how far can you go with this and the answer is no one knows yet. But you can increase your intelligence, you can live longer, you can feel better where you live longer. You can change your hormones, all this cool stuff and no one was figuring out how to make this available for everyone and it requires investment, so just thank you for doing that.

Sergey Young:

Thank you, thank you, and with \$100 million fund, we became the largest longevity focused fund in the world so that's ... It doesn't show how genius we are, it's how fragile and immature the industry is, because as you said, by financial industry terms, \$100 million is almost like a pittance.

Dave:

Yeah, a tiny, it's like a flea on a camel's back. I mean it's just, it's very small.

Sergey Young:

It is.

Dave:

But still let's take that \$100 million and celebrate it because it'll lead to hopefully a few really positive outcomes and then all of the other people who are backing funds will say, "Wait, let's put a little bit of our assets there," and frankly, folks, doing longevity instead of, "We're going to solve this one disease," is probably worth doing.

Sergey Young:

Of course, it more comprehensive, you know, top-down. We looking at the causes of aging, rather than being symptomatic as current healthcare paradigm.

Dave:

I want you as a final question interview to paint a picture of what you think the world's going to look like in a 100 years?

Sergey Young:

Oh, okay, so the components of that, right? I think we all will have an opportunity to live 200 healthy and happy years.

Dave:

200 healthy and happy years, are you going to be around then?

Sergey Young:

Yes.

Dave:

All right.

Sergey Young:

Actually, funny enough I did a back an envelope calculation of what are the piece of real estate I need to rent for my 150 years birthday.

Dave:

You're looking at sea levels.

Sergey Young:

Yeah, so what I've done, I actually, if you think about immediate family and like immediate friends, is like 15,000 people party. So what is that? Is Madison Square Garden, or what do I need to rent? So it's lot of fun implications on kind of real estate, on how we're going to live so I think we all going to have a lot of years to realize our dreams. I think work will be done by Artificial Intelligence, with our limited involvement. I think we'll all have universal basic income. I think there's huge opportunity to come back to our roots, to our hearts, our minds, saving the world, making the world better place, sharing the wisdom as you said.

Sergey Young:

That's great, and then obviously infrastructurally, it's all going to be, our supplement's going to be 3D printed, every morning on a basis of deficiencies that identified last night. And we'll have an opportunity to replace fragile parts of our body and we'll ... and think about even new regenerative diseases. I think, my integration of human brain with Artificial Intelligence, you can always kind of use the eye for compensation of certain degeneration effect as well. So there's so many exciting things that we can do with human body and mind, but what I would like to underline that it's worth starting today, with small changes in our lives. Eating healthy, focus more on our sleep, and meditation, doing act of kindness, looking at how you can turn your diet and supplement it with additional substances, minerals, et cetera, doing more vegetables and then doing annual check-up regularly, right? And identifying early risk in your health, rather than waiting for stage four cancer and then trying to find another million dollar for the last hope.

Dave:

I love that message. I'm fully in alignment with it. Keep doing what you're doing, Sergey. Thank you.

Sergey Young:

Thank you, and I want to thank you for inspiration as well. You were one of the guys like Peter, Tony Robbins, and you, who are just push me to start to think about this whole thing. About not only changing life of mine and my kids and people whom I know, but also creating like one billion movement and changing one billion lives mission. Thank you for that.

Dave:

Oh, you're welcome. Keep doing it.