Telomeres and Biological Aging

So we get to biological reversal, which is the goal that I was focused in in terms of doing these studies. And we started with telomeres because there was testing for telomerase easily available as blood tests 10 or 12 years ago when we And I won't spend much time on the science of telomeres, but basically telomeres are little end caps on end of our chromosomes.

And they're vital for allowing cell replication to occur. Last time I checked, there were 2,500 PubMed studies and so forth related to telomares. What we know is that every time we have a cell replication, we lose just a little bit of that end cap.

And while that end cap is intact when we're young, cells replicate as they should. The replication goes smoothly and so forth. But as we age and as those end caps deteriorate, then you start having problems with the quality of the replication and it leads to aging acceleration, mortality increases, as well as chronic disease.

Bill Anders is a well-known scientist here in America and there's a quote here where he says, every time our cells divide, our telomeres get a little shorter and every they shorten, ourselves age.

Elizabeth Blackburn was one of three people, American scientists, who received the Nobel in 2009. And she says in this quote that, "'Tilamere slows the rate at which telomeres degrade and research indicates people with longer telomeres have less risk of developing the common illnesses of aging.'" So that's what telomares are all about.

So the idea was, Could we re-lengthen, could we slow the process of telomere loss and in fact could be re lengthen them?

Self-Testing and Telomere Reversal Results

And so on the screen right now is a study from Professor Cavinson in 2003 where he shows that the pineal gland peptide induces telomerous activity, we won't go into the mechanics of that, basically resulting in teloner lengthening.

And that was remarkable because slowing the loss of telomeres and lengthening them is one of the holy grails in all of science. And to my knowledge, while there are some claims out there, there is no one that can on a consistent basis lengthen telomerase except the Russians and now, of course, our clinical study.

So what I'm showing next is my results over a period of time. I mean, a good scientist, I think, experiments on himself, much like this parachute is famous for doing and so forth.

And then you start testing on all of your loved ones and your friends and you hope that they continue to be your So, in 2014, this is before I met Professor Cavinson.

It's before anything about peptides. I was 68 at that time, and my first telomere test showed that my telomeres were equivalent to someone of a 75-year-old.

In other words, when they measure the end of my chromosomes and look at the telomeres, they can sort of equate that to a biological or to chronological age.

So my telomer age, as we call it, was 75. Or in other word, my telemers had accelerated loss and I was seven years younger, or you might say older than my chronology age not a good situation for a 68 year old that accelerated aging.

No. Two years later, I was retested and at that point I had been on the peptides for about a year, had met Professor Cavinson, so forth. I'm now 70 and, at this point, my telomeres are equivalent to a 68-year-old.

So I've gone from seven years older telomere-wise to two years younger. Two more years later, 2018, I'm 72. My telomer age is 44. I'd been on the peptides, you know, for about three years plus.

2019, i'm 73 chronologically. my teloner age was down to 35. And then the most recent test. Holy cow, look at you. Yeah. No wonder you look younger! I was 76 at this point.

And my telomere age, as we call it, was equivalent to a 23-year-old male. Amazing. That's really impressive. Yeah. So I decided to to decrease the attention on the telomeres because I was concerned that Vess, my wife, who you know, was going to leave me for a mature older man.

Stress, Pregnancy, and Athlete Case Study

But you could always claim immaturity when you do something that annoys her. You could also always say, look, I mean, the equivalent of a 23-year-old, we know that the adult male really doesn't mature till, what, 26 is the current number?

I thought it was forever. Well, possibly. No, Vest wouldn't buy that anyway. I know she wouldn. She doesn't by that nonsense. In any event, this is very impressive.

So that was in 20. Have you tested since 2023 or are you just riding away? I'm in the process of retesting beta testing with this new company right now.

Oh, wow. Okay. Well, that'll be interesting. When do you expect to get results from that? Four weeks. All right. We'll have to check in with you in September.

Yeah. These lab tests are not like, you know, running down to the local lab where they do a lipid test and so forth, and you get the results two days later.

They're much more complicated. It wasn't just me. This is a photo of Tora Bright. Tore Bright was a three-time Olympic gold and silver competitor and was an Olympic Gold and Silver winner in snowboarding, skiing, And of course, the Olympic doctors, I guess they do extensive testing.

I was stunned to find out that they did telomere testing, but then I understood why, because we won't spend the time on it today. But what we know is that the number one situation that causes accelerated telomere loss is stress of all things.

And of course these athletes, Tora had been, you know, skiing since she was about five or six years of age and she is now chronologically 32. Her doctor, limbic doctor tested her for telomerase and her telameres were equivalent to a 56-year-old woman.

Yeah. I was going to ask you about the stress anyway because that came up earlier in our earlier interviews. And I just want to say to the audience, because we're going go long on this podcast, that if you take nothing else away from this episode, it's the massive impact, the chronic stress that is not dealt with properly will have on your ageing, really, on accelerating your aging, at least from a telomere perspective.

Yes. In fact, Elizabeth Blacksburg, who I mentioned earlier, Nobel Prize and so forth, professor at UC San Francisco, she's done extensive studies on stress and telomares.

And what they've discovered is that if a woman is pregnant, And she's not happy about being pregnant or there are financial issues. She's a single mother.

There's death of loved ones in the family, you know, just a very difficult pregnancy. average with 15 to 20 percent

shorter telomeres at birth than a woman giving birth where she was happy about having the child, money wasn't an issue, she's got a supporting spouse, you know, all these kinds of things.

It's that powerful it can be passed down to an unborn child. Yeah. Well, I mean, there's a lot of talk about generational stress being passed down to a child and that may be part of it.

Yeah, we put Tura on about an 18-month program of telomere bioregulators and two years later we retested her. Now she's two-years-old at this point, but her telomares were equivalent to 31-year-olds.