Introduction and Doctor Roccou2019s Background

Hello, this is Doctor Joe Rafael with another episode of the Telomere Summit. Today I am very pleased to welcome Doctor Galerie Rocco to the summit. Welcome, doctor Rocco.

Good morning, doctor. Thank you. Thanks for having me. Just to tell you a little bit about Doctor Rocco. She is double board certified in family medicine and anti-aging, regenerative and functional medicine.

She's been practicing medicine for over 20 years and is founder and president of Optimum Wellness and Longevity in Corona, California. She recently published her book Growing Younger A guide for men and women to learn how to fight premature aging and restore their youth energy, sex, drive and sleep.

She currently practices customized bioidentical hormone replacement therapy and regenerative medicine, and is known by her patients as a wellness warrior.

Welcome, Doctor Rocco. Yeah. Why don't you tell us a little bit about your journey to this type of medicine? Most of the doctors that I've interviewed, and I myself have started out in more conventional medicine and gotten into this exciting field.

And I always love to hear the, the sort of the, the journey that, you took to get here. Sure. You know, I agree, I think most of coming to medicine healing and wanting to, transform people to be healthier.

And, when I was young, you know, we migrated, fully immigrated from India. My father came to our care, came to United States, and, it was a big challenge to adjust.

But what I loved is that the open mind is here to medications to heal. When I went to medical school, it was so different because I was better. It was more structured on, disease, disease maintenance, if you will, instead of, like, disease prevention.

And I think I deterred it from, conventional medicine and went into more preventative, functional medicine because I realized that it took so much time to explain to patients why you can't just take a drug and sustain a disease.

And when you actually want to make lifestyle changes, to reverse it and actually graduate if you work from a drug. And so I realized that that wasn't the path that I wanted to stay on.

So I pursued, regenerative medicine. And I had a personal story with my sister who also, I didn't realize, but I had the prescription she was given to.

She, sadly, at 19, she, she developed schizoaffective disorder, which is very severe, along with bipolar, which is very severe. And she had the best treatments with so many physicians.

But, they never addressed, like, the functional side of it in our body, like how we eat the nutraceuticals or if she had any toxin exposure. And these are just prescriptions.

And, even though they helped her, they didn't sustain quality of life and so many side effects took effect. And, it's very tragic because I feel like I want to be more fulsome when I treat my patients.

I want to look at every aspect of what's causing them to overeat or self-medicate. And I want it to be more sustainable independently of a drug. So, you know, of course, we can all prescribed drugs.

There's nothing wrong with that. But we want to honor the body to have its fullest immune system engaged. When

we get exposed to such thing as Covid or even just cause pneumonia, you know, mental disease.

So, so I love, love that I'm in this form and medicine makes me feel a lot more impactful in my patients lives. Yeah. I mean, I do hear that it's usually, often.

Journey Into Preventive and Functional Medicine

Anyhow, a situation where a loved one, a parent, sibling or a spouse had a problem that wasn't exactly addressed by some of the traditional approaches to disease.

And that sort of spurred them on. I myself had two parents with Alzheimer's disease. So I was looking after five years of practicing internal medicine to see if there was something different that could slow down that process.

And, and that's, you know, I hear that. So I hear your story, you talking about you getting into, sort of the more functional and preventative aspects.

Tell us a little bit about how you approach a new patient and what what types of patients do you treat? Most regularly. And what's your approach that makes it sort of different?

You know, I think, I, I see all different age groups and I, especially see, men or women, children that have or adolescents that have been kind of, imbalanced by, could it could have been a crisis or, it could have, it could be just a hormonal imbalance.

And for instance, like a lot of young women now have issues with periods and, and PCOS. Right. We're seeing that so much in the church, you how they're aging and going through puberty and also affects their needs system.

So if they're doing, you know, self-medicating things like cannabis or vaping, stuff like that affects them more immediately because they're not aware of how it affects their hormones, whether it is developing.

And a lot of young, men too, like, I don't think they realize how these things affect their mental behavior or their, hormones when they're under stress.

You know, a lot of, as we, as we do, focus on enterprise and menopause, I feel like it starts a much earlier now because people don't sleep as well. People don't the right proper nutrition.

And I feel like there's no age like limitation anymore. We have to start as early as possible to feed everyone about nutrition and about how our cells regenerate.

It's just not automatic anymore because we eat so much more processed foods, and we put so many negative thoughts in our brain and don't remove them. And I just feel like, especially with the last couple of years, all the challenges that we've gone through with Covid and, and media, being so negative everywhere you know, we we don't keep in perspective how amazing our bodies are, how incredibly resilient we can come back pretty much anything if we just eat our body.

Right. You know, with nutraceuticals and how we eat no sleep, exercise. So I kind of take a whole range of patients. I really, decide independently if someone's a good fit for me because if they're not willing to change, which is probably the most important thing and want to be better, you probably wouldn't be a good, match partnership.

Yeah, it's interesting that you bring that up because I think there's more there's more evidence and studies now talking about how, in utero programing and then childhood stresses can affect epigenetics, that then lead to increased risk of disease.

In young and mid adulthood and ultimately, of course, later in life. So addressing those early on I think is really the ultimate in preventative medicine.

In fact, you know, telomere biology starts right there. Telomeres start getting shorter, at birth. And if there is stress, there's a series of studies that show that that can shorten telomeres more rapidly.

So, focusing on, younger people and getting them started early with healthy, healthy behaviors, I think is definitely a great approach. Thank you. Yeah, I you know, I also see that in my practice now we have so much more infertility issues that to me like it's a pretty young age and it has so much to do with stress and how our body protects water from not getting pregnant when we're too stressed out.

We don't sleep well. And, we're seeing that so much more now, and I feel like the best thing is to unlearn bad habits and introduce healthy habits so that even if you successfully help someone get pregnant, they have to maintain that, like you said, like, positive stresses, not negative stressing.

And, you know, people aren't willing to, realize that all those things, in fact, like you said, like how people gain weight later when in their 30s or how they cope with, you know, crises in their life.

So, yeah, telomere length, like, is immediate. Like you have to start addressing it soon as possible. When you meet people. So, I guess what type of evaluation you do, you do a baseline to sort of get an idea, you know, in terms of, you know, history, physical, other diagnostic tests and lab tests.

And do you test telomeres regularly in your practice? You know, I, I do a comprehensive serum test, and I look at cardiac and, and, you know, hormone evaluation in urine.

But, you know, I don't do telomere, testing, and I'm happy to implement it. I think I've seen that. I do so many a cardiac markers and lipid particle sizes.

Yeah. Like other inflammatory levels when I see them high and I see them, dramatically decreasing within 3 to 4 months, I'm, very confident that in increasing, that telomere length.

But I also utilize 265, pretty widely in my patient population. And so I implement it right away, and I keep my patients on it ongoing, loving my patients.

And, and it's because I'm assuming, obviously they're coming to me and they're not sleeping and, you know, exercising. Well, anyway, they're not producing proper, by regulation hormones, estrogen protection, you know, you know, whatever it is, I have to just I feel like I start off right away because I'm assuming that that telomeres are taking a hit.

Yeah. Well, they they likely are. I think you know, well one of things I love about telomere biology and, you know, all the association studies with chronic diseases is that, every healthy behavior is associated with longer telomeres and all the ones that are not so healthy smoking, obesity, lack of exercise.

And of course, cycle and physical stress are associated with shorter telomeres. So it's probably a fairly a fairly good bet. So what percentage of patients do you is, is sort of like a base and sort of a basic supplement that you think you can put patients on, you know, not necessarily like my autoimmune disease patients.

Absolutely. Like with Hashimoto's lupus, when you see fibromyalgia, history of Epstein-Barr mono, like when you see, people healing slowly in middle age, from the Middle Ages, in the 50s or 60, back conventionally 30s, are always eager to see people not properly healing.

I think it absolutely does not hurt to at T 65, only because it's got, that telomeres help produce healthier cells. But if someone has, complications with sleep, I find, you know, like melancholic, mental, kind of like a heaviness.

I feel like to you, 65 in my practice, at least, has helped them induce deeper sleep when you balance your hormones, energies, healthy eating, exercise.

I feel like it's like the icing on the cake that helps people remain calmer, if you will, and not be as, depressed. Now.

You know, I use at higher doses and times with each patient, as I'm sure most of our colleagues do.

I think, you have to figure out, like, you know, how severe someone's body is. If the older my clients are, the more open they are to take me more to 65 because I explain to them that, you know, telomeres.

Treating Patients Across Ages and Conditions

Well, are, you know, we we've learned that they start out with such a high base, we come down to lower and lower like five K. So a lot of my elderly patients in their 80s are appreciate the difference from energy or if you will, not feeling it down from taking a higher dose of T 65 as well.

Yeah I hear that anecdotally from other doctors I've spoken to in patients in my practice. So you, you feel like, patients actually have a, a subjective improvement in, in how they feel when they start and what kind of doses are you using in the in the older population, you know, generally, it depending on my patient, if they can afford it, I'll tell them to use one video and I'll tell you the capsules or the tablets, the 250 or the five.

I'm sorry. That capsules. Yeah. Capsules. They usually are 250. The ones that I prescribe. Yeah. To 50 ones. I use it one bit. It now obviously like I get women.

I don't use that because I don't know the safety margins. But generally I do with young adolescents. If I find that they have an autoimmune disease, I immediately start one today, the two 50mg with anyone that's about 15 over r anyone that's had Covid.

I use it aggressively. I use it to the IB also 500, twice a day if I use it. Yeah. I mean, bad dosing strategy is is I think a pretty good idea, because of these, you know, the half life of to 65 and below by about eight hours is not around as much.

So you get that more, persistent stimulation of telomerase activation? Yeah. I think you might be the first doctor I've spoken to who uses it in adolescents.

You see anything, in terms of markers or clinical response from putting them on to 65? You know, I have to say, like, now I'm seeing a lot more Hashimoto's in young women, you know, and lupus flare ups.

It's really odd. And I don't know why. Like the last three years, I see that, you know, there's a lot more nutritional issues going on. I feel like people are not eating the foods.

And I've seen obesity is an issue. I've seen a very, amount of increase in PCOS, women having, fatigue, depression, weight gain, insulin resistance. And I feel like it doesn't hurt for me to give them a T 65, because an increasing the strength of the good cells to regenerate, to keep those base pairs long.

I haven't seen any negative effect of taking it now. There's other things that I use. We could obviously like b-complex by D Omega. There's a my protocol calls for, eating plant based proteins, cutting out dairy, cutting out sugars.

So it's a very, detailed protocol that I do along with exercise because exercise induces probiotics and that help steer tone in the system. So adding a to 65 in each node or 50 year old is going through.

I don't mean disease like losing hair from Hashimoto's, not having regular periods and other times issues. I've seen that it kind of, helps my protocol shake into place.

So these women, these young ladies feel more confident with their weight loss energy and sleep and that is depressed. I don't like to prescribe antidepressants necessarily.

Right off the bat. I really am open to it. But I feel like, this helps their, you know, their auto immune system, if you will, increase production. The healthy, like CD4.

So they increase their production of their own serotonin and epinephrine. You AP I do I know the science. Really, I really don't. I'm using it because I can use it to benefit my patients.

I've seen it help the, you know, 30 year olds, 40 year old. So I'm hoping that it'll help the younger, you know, 17, 18 year olds. So do you see some changes in how independent I know?

The markers that you see mentioned some of the, lipid, particle, markers and some, breakdown of, of the, lipid profile. Do you see some, improvement in those when you're on a comprehensive program?

Of course. But, it would be interesting because, there is a study going on right now looking at, recurrent M eyes in people who have had, first mi, and see whether to 65 for a year, reduces the number of senescent cells in their blood, which secrete all those inflammatory markers that can cause all the problems you're talking about.

And also may potentially reduce events. So you do you see anything in your markers? You know, I'm, I'm very aggressive with nutrition when I treat, the label particles.

And a lot of my patients that have, LDL, the small particle high levels and the low HDL levels, I immediately discuss cutting out red meat and cutting out dairy, cutting out sugar.

So to me, I do use the TCT fiber. I will have to say it's there between here and know nutrition has changed on top of the t61. So I have no way of knowing, like if that's because I don't hold all parameters constant, I really need exercise.

Absolute. You know, my patients, all my patients have to exercise 3 to 4 times a week, probably an hour walking or whether they want to do weight training, Pilates, whatever it is.

I'm very strict about exercise and nutrition. So, those things are like icing on the cake. Like using nutraceuticals because anybody can buy nutraceuticals.

Why does it impact my patients? I believe it's because they actually cut out inflammatory foods. They actually put in lots of plant based foods. And, they exercise, you know, sleep is critical.

7 to 8 hours, six okay. So people that, you know, I really ask them to wonder that, so all these things to me make a big difference and just put it on nutraceuticals.

But the nutraceuticals have a grand effect when you do everything else. Right. And I personally have seen that, and I feel like my patients are so compliant because their health is so much more boring.

They don't have to have so many events. Their immune system is improved, even with, you know, chronic autoimmune diseases. I find that a lot of my clients don't have episodes.

We have. No, I think that that you're you're absolutely right about that. 265 is not inexpensive. How do what kind of a sort of discussion do you have with the patients before, you know, when you introduce it to them and say, look, you know, I think it's worth it, worth it to take that, just to help our listeners with, with their illness, because I know that, in my practice takes some, some, some discussion to sort of tell the patients, well, you know, you have to spend $200 a month on this, any pearls on that?

You know, I have these guys. I had you guys, Sebastian, had sent me this huge poster explaining how telomeres. It's a diagram of the chromosomes and the telomeres and has a picture of a young, a baby and an elderly man.

And I have like, 2 or 2 of those in my office. So explain to people, like, visually, it's very powerful because you want it. People have a hard time imagining it and transform or feel better when they come, because they're usually at their worst when they come see me because it's a cash pay office, right?

So it's people come because they're really desperate for help. So I explained to them, this is, you know, where you

are right now. You know, you're not be generating your spirit healthy cells.

We don't by the time we age, we have more joint pain. We have more, you know, brain cognitive issues and memory issues with sleep. So this isn't inaccurate, but perhaps this will improve our condition.

And I tell them that it won't hurt you, not that you won't need to take it because you know it might. It's not an immediate thing. You're going to have a feeling when you wake up. But just like you put a penny away every day in your savings for retirement, you can put it at 65 away.

And just how we generate. So I mean you think some of your brain cells your heart out is lines up in January. And it might not be enough, but it certainly is way better than doing nothing. Right.

So it is a cumulative effect, and you have to have faith in your, your own that your work. And I tell my patients you're worth your help because what else do you have?

So just reminding them that this isn't about like, it's not a drug that is going to help. We can measure and immediately figure out if these things have changed.

But I can tell that my patients have renewed faith in their own healing if they know there's something there to help them, even when they do their own positive changes and, you know, it's almost like a treat for them to take.

Yeah. I mean, I think, you know, that sounds like a really good approach. I, you know, putting the penny in the bank. I often say, that, you know, building up your biological 401 K for, you know, more health in the future.

And that's actually molecularly being built up by lengthening of the telomeres. And they sometimes glom onto that as well. And then how about any, particular, anecdotal, improvements?

Telomere Testing, Dosing, and Patient Education

I know some of my patients, other doctors, their patients have talked about vision improving, particularly, presbyopia. Okay. So, you know, I don't have a direct impact of each, chemical effect because I study like myself, which is hormones more.

So I guess I, I love reading about this, and I, you know, I listen to, I sit on webinars, but as far as, like, what I've seen in my patients. Yeah, my snack, temptation.

Even in myself, I feel like night vision definitely has improved. Even my vision has improved. I used to be nearsighted, and now I kind of is getting far sighted.

But even that, I don't really need those glasses. I find that, but I take probably like for about four years now, and I find that, like, women have told me that, you know, the hair, they see there's not as much graying if you.

Well, as clinically, it's not as wide. It's more like a darker brown or the graying effect is not as prevalent. If they started early enough. You know, I don't want to use that for women because I can't prove it.

But I feel like it. That benefits, hair color as well. I just, I just look at the high dose that I give probably to a day, you know, and then the two by two.

I feel like that helps people get into acute, depression or challenges and helps with sleep a lot deeper. And I guess, with research will realize that, you know, it has a lot more effect that I could see or I can appreciate in my patients if it's true or not.

But, I do read that when you, you know, get plasmapheresis, like we've seen that in it was just a study that I read about when you put an old mouse with a young mouse and you do the plasmapheresis, you see that the younger mouse has more, telomeres and stem cells.

So when you do it to the older mouse, you see an older mouse generate a lot more younger properties and regenerative cells and heal quicker and look and feel better.

So, you know, if we could give the, the power of telomeres to, midlife, you know, 67 year old person and have them feel more mental energy, physical, you know, strength.

That's great. I wouldn't provide it for my patients. Right. So why not? Yeah. Gray hair. I just recently saw a, a paper, well, like a sort of a presentation on the new kind of, understanding of graying hair.

We used to think that, you know, the melanin cells, stop producing the pigment. So the the Harrison that does happen, but the, the stem cells that replace them, a lot of sites they thought were gone, but in fact, they're sort of more in a quiescent state where they're just sort of sitting there.

And, you know, I've seen it in my patients as well, talking about the reduction in graying hair. It it may be just as in the study we recently published showing a reduction in senescent cells, that perhaps these quiescent stem cells that are producing, the melanocytes are getting turned on again or reset by lengthening of their telomeres.

So there I mean, I think there there may be some biology behind that there also. You know, I think there's also that Pd-l1 inhibitor that's used in, in cancer, therapy.

One of the side effects was people getting less gray hair and reversible graying hair. So we we kind of know that that can take place. And telomeres are very upstream from all that.

So if you can reset the telomeres, maybe that is what's going on and maybe what's going on with the vision as well. You know, the retinal, epithelial cells, getting more telomere length.

Do you have athletes in your practice? I do, I do. You see. Do you see it? I mean, I think go ahead. Sometimes I'm just wondering do you see anything with them.

I because I have some masters athletes that, that see that kind of stuff and you know they've had certain times for their say, you know, 10-K in their, in their 50s or 60s and they keep very detailed records and they get to, start taking, to 65.

And so to see those, those numbers, the times decrease. Do you see anything like that? You know, I feel that I don't I don't have them monitor how they do with it.

I add it on just to their protocol. I have a lot of bike riders and, people who do, you know, several Ironman, but a lot of competitive riders. And I feel like, but I use any as well as I, you know, I use other things, from the outside do the testosterone.

So I feel like it's up to all of it combined together has a very positive effect. I do have my patients when they're in a competitive state to take any kind of sport to double up 30 to 65, you know, but it's just because I encourage young to have a deeper sleep.

And you can store down their properties for after they've got so they can have better recovery as well. I don't I don't have to monitor how much they take or if they take 2 or 3, take three, prior or after their race.

I just have them, I do check their lavatory levels to make sure that they don't have too much information in their, muscles or, just post up, post race or whatever, but I don't.

I guess I should pay closer attention to that because I'm not looking at their performance as that is, I'm looking at their long term, you know, information or cardiac benefits.

But that's a good thing. I'll start looking at. Yeah. I mean, I don't even tell these guys and women to do it. That's just part of their, their training records.

They they bring them in their Excel spreadsheet and they go, look at this. So I'm very happy to see that. And they're very pleased. The times are coming down and they're beating their, their old, classmates at the races they've been running for, for years.

They're, they're kind of happy about that. So, do you, I mean, vis-a-vis the, the Ironman, I mean, that kind of training has got to be stressing stem cells and regenerative capacity.

You mean there's a pretty good body of evidence showing that, too, like just walking in to intense, you know, high intensity training and without a reasonable recovery period, shortened telomeres or doesn't certainly doesn't like them or keep them from getting shorter, more rapidly but moderate exercise.

So an Ironman training, just the training itself. There are many Ironman itself. I would think that they should definitely benefit from some telomerase activation.

And, you know, I wonder whether at some point is going to be a banned substance in the Olympics. Well, yeah, I, I hope not. You know, that's where I agree with you.

Like, I try to encourage me to just do moderate like nothing aggressive because now that we've seen so much research about like, you know, even after people work out, like it's so important to have your down days and just yet recovery is so important.

And I agree, like, it's good to push yourself, but I don't want to be like, you know, it's it's helping to be if you're going to be a marathon runner, you're right.

You have to take actually two minutes. It's fine because you're just breaking down your cells to greater degree and or not giving it time to recover. So you're right. Like I'd be much.

I'm sure some like runners, take a lot more T 55 on their own. Because if I think about that now, is it encourages people to balance and do it for the right reasons and not add more stress, if you will.

To make it a negative present on your body. You can have a positive. You mentioned that you use nad how do you, you use any of your precursors. How do you do that? You do a IBD, you know, I, I use, a brand new to get sublingual.

And then I also, I did a lot of research. You know, I've gone to a group, read Doctor Sinclair's book, and I have gone to event with him. Where he's here.

So I try to, you know, keep on top of everything because I do, you know, a consumer mentor, and I read so much of his material, I use a lot of, insulin resistant, kind of, nutraceuticals, if you will, like metformin, like, and, and, and that's with people that have a high risk of that or that just look like to me, they're fighting really hard to, keep their, hemoglobin for our insulin, fasting insulin level below.

So I'd use that for that reason. More for, helping me generate mitochondria than just for to give. I do it customized for of quite a few of my patients and women.

I feel like, you know, we take a little bit of energy supplement, in the precursor and you also take a rest natural and you take, the T 65 at least. Did you notice so much more energy, you know, effortlessly without having to drink some of those terrible drinks that are like full of toxins and you drink more fluids that are healthy, like, green tea or water, and you don't feel like you're craving so much, energy.

You know, sometimes we crave energy and we self-medicate with unhealthy things, and unhealthy thoughts. So it just makes it something you don't have to worry about.

Yeah, but is there, So. Sounds like you use all the nad mostly. Is there a particular form, nicotinamide ribose side or nicotinamide? Yeah, I use I use the scientific, I have to look it up.

But you know what? I have it in, and you look at why we're talking. I just love that, you know, I've been using that. I'm sorry. It's called. I think you can say that again. I'm sorry.

The scientific, it's it's a it's a brand of. And is it in our in women? No, it's not sublingual spray. Okay. And, it's, you know, it'll come to me when I'm thinking through hard.

I have so many different supplements that I prescribe, but I you to look for it. Oh, I want to say it's quick here. You hear it? Quicksilver scientific.

Oh, right. And I think, they've had the they had come out with any body spray for a very long time now and I just don't I've appreciated it in my patients.

And then, you know, the, depending on the state that we live in, like nad subcu is, is I prescribe that too. But you have to be very cautious because now since January, especially in the state of California and in California, there's been a limitation.

So I'm trying to like follow all these guidelines now, like, you know, even more strictly. So, in in state of California, we do prescribe stuff to any do which I do that to.

Yeah. I mean, I certainly think that raising NAD levels, as they say, certainly decline with age, is complementary for sure. With telomerase activation with something like 65 or trying to keep your tumors, the molecular pathways where they interact, sort of synergistically.

So, yeah, I do I do a fair amount of that in my practice as well. I'm just trying to figure out because we don't have a good test, which one is working better.

Is it now or is it in an in David Sinclair talks about in, in, in I mean they both yeah. Or you know, in I mean, it's a little bit more of a precursor but does not get into the cells better.

So it's kind of a scenario where it's a little it's a little tricky right now. You know, I guess I haven't found the best supplement for that. And so I just went right to the end because I seen, you know, some of the products work on my patients.

And I couldn't figure out, I don't want to overload them either, to be honest with you. Like, how much can I give that? Right. You know, another thing is I was really into peptide.

I was using peptides quite a bit as well before, and now I cannot, which is very challenging in California because sometimes times elbow is one that I really love.

And because of limited. And now that we can prescribe it, you know, unless we get from Canada. So I don't want to go there. So I use 1055 lot more than in some of my patients that benefit from and seeing at that time is an elbow.

Sorry. Yeah. Yeah. That was an alpha one is really interesting molecule. And for, you know, rejuvenating your immune system. I haven't had that much experience.

NAD, Peptides, and Hormone Optimization

So I'm curious about what kinds of results you see, from that when, when, when you were able to use their a little bit more liberally. You know, I just use a really low dose, but, I mean, I used it for three weeks from patients, and, that would be it and might tell to take.

I'd do it every day, five days and two days off for three weeks. And it made a significant improvement in people who actually took it for sinus issues.

You know, like they had a season where they would just get pneumonia, bronchitis, and you get it. So it's very

beneficial. I feel like, it was a little bit that made a big impact in patients.

I didn't use it in any patients at history, cancer or any kind of like, you know, malignancy, history in their family or themselves. So I used it generally for improving, like whatever we need to work towards or whatever we need it for, any kind of acute fight that patients might have needed.

And I, I really did use it pre-COVID, in patients a lot. And I think it helped them with Covid, you know, recovery as well. And so do you, use any other peptides, in your practice?

BPC 157 and yeah, I do it. You know, I can't I don't know what state you're in, doctor, but the state is really super strict. And I know York is pretty much like California.

It's really sad. I have to use everything topical. I did like that. I stepped to a whole lot better, and I was using, quite a few peptides, and, now they got rid of there was, one that I used for, for.

It's been like a year and a half now the, the. I can't prescribe it, but it was for brain fog. And, it was incredible. I feel like it helped my Alzheimer's in Parkinson's patients so much.

And now to give to 3 to 5 is incredibly expensive for those patients, you know, along with their treatment, of course, you can buy insurance and take it, but I feel like, you know, I don't know what's it's really painful because we have to follow guidelines like what I can prescribe in my state.

But, I was using quite a large profile, but, I should say, the ones that I could use in my state now if I wanted to get in my state and I have to go through Arizona, Nevada, and have my patient bring it to me to to use it, but I don't I don't do it anymore, you know.

Do you do any of the I know you do a lot of hormone optimization. Do you do any of the, the growth hormone stimulants, GP's or, or test them all in or or, I was doing the Memorial Institute for the island before the peptide, but I can't use those anymore.

So I was using those prior to, and, you know, when I could get it now for, I know you usually use growth hormone in the state. It's also very challenging.

If I do, it is a great tool. And then with, you know, I do like a plant based biochemical. So it's probably my favorite stat. My most common thing I keep repeating is.

Yeah. Yeah, I, you know, I go ahead. It's it's very unique. Depending on how old the patient is or what they're able to, handle because, quite a few of my patients are, are also women that that had weight and or, early ovarian failure, you know, where they're going our way through menopause much sooner than they thought they were.

And so, you know, if they've had a hysterectomy. So it makes it a challenge, like, you know what, you get them and how much is enough. But, you know, I think like I think now that we've talked to, before, a year and a half ago, I was looking into testing telomeres just to see, like, how much I can improve my patients, you know?

But then I said, you know what? I think they're spending money. I'm just going to have to spend money on the product to see if there's a benefit. But do you find that clinicians are using the testing?

Is it making improvement in, they do. Do we see much of an improvement that is needed to show the patient, or is a lot of patients just really towards the condition?

It's really times tested. You say, okay, what do you think would help me? You know, is it for us or is it for them that we tested for? Because I find that if you're using it, you're going to increase your telomere length.

Yeah. The dosing, it's, in my practice and another practice, doctors I've spoken to, I do baseline telomere length measurements, and then I do follow up on my like that is, but I certainly hear when you're talking about they're not

really expensive, but they're not inexpensive.

But 300 and $400, depending on what lab you're using for the telomere testing, and telomeres have, you know, a coefficient of variation of, you know, maybe 2 to 3%, but that, you know, is, like 2 to 3 years of, of telomere length, attrition.

So you have to do serial measurements to really get, an idea about what's happening with it. You know, that being said, we did publish a few years ago, a randomized controlled trial showing the T 65 at most of the doses, showed a significant increase in comparison to placebo in telomere length.

So you can say, you know, with confidence that, if you're doing it without testing, you likely are improving telomere length. The only issue is that telomeres to, sorry to 65 is the bioavailability quite variable.

So some people might see, absorption. I mean, the company did studies looking at the pharmacokinetics. And you might see a, an increase in telomerase activity with a low dose, whereas another person might be a much higher dose and has no, no significant serum level.

That would then translate into, you know, a cellular level of turning on telomerase. So the way I explain to my patients is that it's worth doing the testing.

So, you know, whether you need the higher dose, the middle dose or the low dose, because it is expensive enough that, you know, if you're taking a thousand units a day, that's a lot more expensive and will pay for more than enough, deliver length tests if the 250 is going to work for you.

You know, so so I try to do it that way. But, it's, you know, it does take a couple, six months to a year sometimes to get enough telomere length measurements to get an idea about the trend.

So I often have them check. You know, you mentioned the CD4 to CD8 ratio. Check that ratio to see whether or not you're seeing an improvement in that.

Because when you reduce senescent cells, which 65 does do, the ones that are, you know, defined by lack of the Cd28 molecule, that that can happen in the first three months of therapy.

And if I don't see a signal where they're reducing that number, or, you know, improving that ratio, then then I take the dose. So, but I would say that probably the majority of, docs I talked to are using it more, the way you're using it, just because the two hour length testing is expensive.

But, you know, if you're on a for a long term, it's kind of like, it may be worth it from a financial standpoint to the patient to, to get the measurement.

You, find that they do recommend because I use it. I don't keep in mind I don't necessarily all the time. I do it generally for, where I keep flare up if they have any kind of like, stressors going on.

Because I know it's short acting, but at the same time, if it benefits one of my patients to take that over, you know, taking a sleeping aid, which I do want to prescribe. Right.

So I feel like, I use it acutely for three months, you know, six months. And then I have them go down when they feel better able to, you know, improve their other dimensions in health, like eating right or exercising better.

So I kind of gauge it depending on what's going on in their life. But I definitely would have to say yes. You're right. The guy should start testing people to make sure I don't have to keep them on a higher by dosing or with when I start young people, I usually do just do once a day, you know?

But, but, I, I would love to see. I saw, your latest, I think you just put it out last week, actually, about about autoimmune disease and how telomeres, prevent, like T4 cells and it increases, the body's own fighting capacity for

autoimmune diseases.

And I think specifically the DMD patients. Is that right? Right. Yep. Well, I mean, it works in both, but CMV patients are more stressed because, they are chronically trying.

Your immune system is chronically trying to keep it, at bay from coming out. And so if you have your CMV seropositive, then you typically have a larger connection of senescent cells.

And those are the ones that respond most robustly because they have a higher number to target to decrease. But we did also see, an improvement in senescent cells.

And actually an increase in naive T cells, in people who weren't even seeing the positive. That's probably through a more direct mechanism on, bone marrow stem cell increasing.

Lymphocyte reduction and then ultimately T cell production. So but I mean, I think you're I think you're right. And I do something where under the acute situation, giving a higher dose because there, there are stem cells and their white blood cells are being stressed more.

I mean, there was, as I mentioned in that, talk that, Abraham, we've, hypothesized that some of the people that are really responding, very badly to, Covid 19 are those that don't have a telomere reserve to keep up with, the, you know, the proliferation of the, the, the T cells to fight off the infection.

And if we could shore up the telomerase in that short, you know, short term, that might be helpful. Now, you know, that's just theoretical. It hasn't been any study looking at that.

But but you know, you're sort of doing the same thing when patients are under stress. You know, I, I do use, some growth hormone in my practice. And, you know, the way it works is to turn on your muscle stem cell, the sort of satellite cells.

But each time you do that, you know, those are getting a little shorter. So it's. I think it's very complementary to give something to maintain that telomere length so they can continue to, you know, replace damaged muscle cells.

And of course testosterone works on the muscle cells to make them, larger or hypertrophy.

Practice Growth and Closing Thoughts on Longevity

So it's kind of a I think that all works together pretty nicely and sort of I think telomerase activation until the length of thing is, a nice addition that we've had in the last ten years to our armamentarium, and to our approach of, of hormone optimization.

It sounds like you're doing that, that same thing in your practice. Yeah, yeah. I would love to see the research on Lyme disease. Kind of a lot of my patients with chronic fatigue.

And I get it to unwind. I do that to flare up, you know, higher dose. And I've learned that it benefits them, you know, but I don't know if it's just because, you know, they also cut out sugars and cut out wine and alcohol, you know, so it'd be great to see, yeah.

The research that you guys have coming out on that too. Right. So you have a very successful practice out there in Corona, California. Help. Maybe tell us a little bit about how you grew that practice and, and, you know, got as successful as you are, you know, thank you.

Yes. You know, we have a very, wonderful practice out here. The East Coast. And, we came out here about, 15, 14 years ago. And our practice here is, designed to actually, when we first came here, there wasn't anybody.

I mean, Riverside, Corona area isn't popularized. Orange County area. So I came here was I saw that there was so

much underserved, underserved community for wellness.

And, it's more in the high end areas. So when I came here, I did it because I really just wanted to do what I love, and I didn't. I wanted to do it my way, and I really was passionate about it.

And, when we start, when I started, it was like one patient at a time and it's all in word of mouth. And I feel very blessed and very grateful to all my patients.

They just send more and more people. And, I think because I love, like, it's like a puzzle for me to be there's somebody out and try to help them with the most options and the best options I can provide, whether it's like with, you know, a prescription along with a ton of other things.

But my goal really is like looking at someone and seeing and helping them transform, like to be better in 40 or 50 years, not just like 2 or 3 years. So because I think like that, I think they feel like, you know, they feel really comfortable with me.

They trust you have a good relationship. And, and it just they're very, I feel very blessed that I get to do something that I love, and and it's it's a lot of fun when our patients are so great.

They feel better, and their health isn't such a fear. You know, it's not year to age. And, that's why, to be honest, it's why I love my book is I wanted to share my knowledge with everybody who ever wanted to read about it.

And I want it to be very basic and simple. So they realize that it's not timidity to discuss longevity and to talk about like, stem cells or generate properties like, how can I do it on my own?

And I feel like, you know, the more we include people and no matter what their weight, no matter what their race or economic status, the more we can grow this into a wellness community instead of, you know, such as sickness, negative fear, aging community.

So I have a very exciting outlook on it just because I'm from India too. So I feel like the more you choose to people, the more you contribute to society and where you have, you know, the better you feel.

So I don't know, know that's just an approach and great, you know, it really is. You know, I sort of did the same thing. And, you know, initially just sitting there waiting for the phones to ring, but, yeah, like, the marketing is, is this you make patients feel better, they tell their friends, and, and that's and that's how it works. So, this it's been great to have you on, Doctor Roka to, to, on the donor summit and to hear is, is there anything you'd like to leave our listeners with to, as a sort of final word, the words of wisdom or anything you want to tell them?

Well, I always see me with each. You know me. You have all the days of your lives, you know, Scott and and I just feel like that's what we have to do for our patients to help them, like, live their life.

And I was so excited back to 65 when I started it. And I'm like, oh my gosh, I hope my patients can afford. I hope they can take it because I feel like, it's so exciting that we can empower someone from the inside out to grow their telomeres and keep them long.

Because when we studied at med school, it seems so depressing. Like, oh my gosh, like what? What are we going to do? You know, giving them the Lipitor, giving them like Christ or is it going to lengthen it?

So it's kind of exciting and it's so cool because, you know, we can provide so many positive ways that they are even with patients that cancer. And, you know, you give them something like this, there's ways that they can still have the quality of life.

And if they did their parts, they, you know, to be 1860 five inches the like, it gives us more hope. And, it's great to know that longevity is like so it's not a 141 3150.

You know, we'll see. Obviously, the quality of life. Yeah, yeah I know. Well, I agree with you. I mean, the I think the approach medicine is going to be switching toward maintaining the health span rather than treating disease.

And, and hopefully compressing all that to the last year of life or so. Well, thank you very much, Gallery, for being on the show. And, I look forward to seeing you.

Perhaps at one of the meetings and meeting you in person. Thank you so much. Thank you. It's been a pleasure. Thank you. For.