Real-World Data Of Longevity Focused Therapies Transcript

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Introduction to Longevity Telemedicine

– Welcome back to this episode of the reverse inflammaging summit body and mind longevity medicine and I'm your host, Dr. Robert Lufkin. Today We talk about the interesting challenges of delivering longevity based healthcare over a distance and we're fortunate to be joined by Dr. Sajad Zalzala who is one of the leaders in the field who's the founder of Ageless R.

X. Sajad welcome to the show. – Thank you very much. Thanks for having me. – It's so great to have you here today before we, before we dive in. Maybe you could tell us a little bit about your background and how you came to be so interested in this area. – Sure, certainly, so, um so when I, when I started medical school, you know, I wanted to help people just like a lot of, you know, medical students do when they, when they when they get going.

But I discovered there was a disconnect between what we were learning in medical school and what what I thought was possible, you know, to help to help people with with their underlying issues, you know, al empathic medicine that we learned in medical school is very reactionary. You know, you wait for somebody that develop signs and symptoms and diagnosis and then you kind of like, you know, kind of implement the treatment and usually it's drugs or surgery and that really didn't resonate very well with me. So I actually almost dropped out of medical school my after my first year, but then I I heard an interview by Ray Kurzweil on the radio.

He just come up with a new book called Fantastic Voyage Live Long Enough to Live Forever. Co authored by Terry Grossman um along longevity physician in Colorado. Um and it was the first time I had ever heard anybody talk about being pro active about your health.

Uh and what you can do to actually live longer and healthier. I mean, of course, the book, the book talks about how eventually we're gonna be able to upload our brains, but you know, until then you need to have a healthy brain or healthy body in order to make it um you know, that that longevity escape velocity, so to speak. So that that guy really got me really interested in the field of, you know, of integrative medicine, functional medicine and then kind of longevity medicine is, is a natural extension of functional medicine. Whereas with functional medicine, you kind of look at the underlying cause of somebody's symptoms and disease longevity medicine, how do you prevent those symptoms and diseases?

And you actually got that you have to dig even deeper into the, into somebody's um you know, physiology and biochemistry. – Yeah, that's that's that's fascinating. Longevity is such a, such an intriguing intriguing topic before we dive into it.

From Medical School to Functional Medicine

Maybe you could tell us a little bit about what your framework is for understanding longevity and aging. Everybody seems to come at it from a slightly different view points. So why why do we age?

What is aging? – I mean aging seems to be you know something that seems to be programmed into our into our D. N. A. you know you look you look across species and you know some species live a long time and others live for hours or days. So so there seems to be something about our genetic code in our you know our evolutionary history that that controls aging.

You know there have been very different framework that that have been proposed to help understand what goes wrong when we age or as we age. You know, hallmarks of aging. You know there were nine and now they're you know it's up to 14 and there may be more that's added.

So I think from the most basic perspective I think aging is just kind of a failure of of of one or more of our of our internal systems over time. – And what what role do you think does the mind play in aging?

One thing we're focusing on in the conferences mind and and thinking um later on we're gonna we're going to really dive into the drugs and and the applications there but before we do um how does the mind fit in if at all. – Yeah I mean it's very important and write different reasons for different reasons. One is attitude I mean if if you know if you have the attitude that you know oh I'm over the over the age of a certain number 50, you know, you know, you know, I feel tired and you're gonna be tired, you know, I feel sick then you're going to be sick.

So I think part of it is kind of like the attitude, you know, you know, in addition to that, you feel like there's nothing that you can do, then you're right, there's, you know, there's nothing you can do if that's the way you feel.

Um so I think the attitude has a lot to do with aging, but you know, on more of a deeper level. I mean, what what good is living longer? If there's no, if you don't have a sense of purpose in life or if you don't feel like you're contributing or if you don't feel like you belong, you know, in the society or you know, if you don't have a circle of friends, things like that. So I think that's kind of where the, of the spiritual intellectual part comes into play when it, when it comes to aging. – Yeah. In your work, you you have the advantage of being at the cutting edge of a lot of new therapies.

And um you've even been doing some clinical trials and examining their effectiveness. Uh, what, what are you first of all, maybe tell tell us how you how you set that up and what the organization is kind of to make that happen, the structure for that.

– Sure, sure. So let me let me back up and explain what AgelessRx So I helped co found AgelessRx a little over three years ago, you know, it started out, like I said with my passion of functional medicine, which lead to longevity medicine and then I noticed a trend several years ago of telemedicine before the pandemic, before before telemedicine became mainstream.

And um you know, I had this this idea that you know, there's a lot of things you could do via telemedicine remotely um to uh to make function medicine, you know, longevity medicine widely available through telemedicine in a way that's that's you know, it's affordable, accessible. And so everything that we've we've been doing at AgelessRx is um you know, has that has that in mind, you know, accessibility uh and and and affordability um so that so that we can help as many people as possible. So we started offering you know, Metformin which is you know, one of the you know, one of the best research medications in the world has a lot of promise as a longevity therapy, but our goal was to introduce more and more therapies um as as the field evolved and um and that's that's kind of what led us or drove us to do clinical trials. It's a little bit different.

– Oh can I interrupt just one second? I just had a clarification for when you say longevity medicine? Do you, do you is it like full spectrum primary care also or is this would people have their own primary care physician in addition to a longevity physician? How do you see that?

– Yeah. So so no we don't we don't take the place of somebody's long uh primary care physician. We always encourage somebody to follow up because there's a lot of things that you just can't do remotely like a pap smear for example or sending somebody for a mammogram things of that nature.

How Aging and the Mind Affect Longevity

So initially our focus was you know the realization that there are these therapies like like like Metformin that can be easily accessible but it requires a physician with the knowledge and the background to to understand how to prescribe it when to prescribe it things like that beyond just you know the the FDA label of diabetes.

Again going back to the example of of um of diabetes or Metformin. So that that was kind of our first iteration of AgelessRx is just just providing the that east of accessibility to these potential therapies. We've expanded that where we hope to go next and and and the research is part of that is you know personalization, you know identifying various different biomarkers, measurements, things like that that can help um um make make somebody's longevity journey more more personalized. Do you mind if I pause it for a minute.

I'm getting a lot of background. Is that coming through my mic? – So yeah we were talking about the position that

uh the longevity practice that you have plays in in sort of the whole uh the patient, in other words you were saying the patient would have a primary care physician a local one.

And then the telemedicine access for longevity could be anywhere in the United States. Now, are you also doing Canada or just the United States right now?

– We might we might expand at some point to other countries, but you know the regulations here in the US are keeping us plenty busy. And so and so is all the work that we're doing as well?

So so yeah, I mean you're going back to what I was saying earlier, we don't replace a primary care physician um and we don't we don't replace you know, somebody's healthy routine. Either, you know, a lot of people ask us you know, can I just take Metformin or you know, just drop them is in for example, you know, is that gonna be enough? And the answer is no, I mean I mean you know that foreman or optimizing, you know whatever it may be, it's not gonna it's not gonna make up for a lousy diet or a lousy lifestyle.

So so I view this as kind of an extra layer of protection in addition to you know lifestyle and other other things that people should be doing. – So the longevity medicine practice then is it Obviously the goal is longevity and stuff. Is it mainly delivered through lifestyle interventions like diet or is it through supplements and that sort of thing or is it through prescribed pharmaceuticals? You mentioned Metformin we can talk about some of the other ones as well. But What what specifically does a longevity physician add on to a primary care physician? Let's say that if someone wants to really increase their longevity. – Right well I mean most primary care physicians um don't have any knowledge or don't have an understanding of of longevity.

You know like I said we're taught to seek out the you know I see 10 code and then treated with whatever you know the drug of choice is. And so that the the mindset for longevity just doesn't seem to be there among primary care physicians.

I mean I mean there are many that are coming around and you know there are some that that have a personal interest but may not have a professional interest in it.

And so that's kind of where we come in in terms of helping bridge that gap between somebody's primary care physician and and and then access to these to these therapies that that have you know that have good science behind them uh to help to help you know patients live longer and healthier. – if there is no I C. D. Nine code then just just for logistics of it then can people charge this typically on their insurance or will they have to pay out of pocket for it or is it very for service? – currently it's it's a self pay.

Its patient base service, you know, you know health care is This is a misnomer. It's uh it's misnamed should be sick care.

Building AgelessRx and Telehealth Access

I mean you know they really only want to cover things when like I said when you have that ICG- 10 code and when you have a you know a treatment that they approve of and currently you know, longevity is not you know aging is not a currently you know recognized as a disease officially and and longevity is not recognized as a therapy.

Yeah. Yeah. I mean there are there are efforts to you know to to change that um you know, but I suspect insurance will always continue to be sick here.

And so I think the responsibility will probably always fall on on the on the individual, you know to make sure that that they're doing what they can on an individual level as much as they can. I mean everybody everybody comes to us, you know with different levels of readiness um you know with different levels of commitment that they're that they're willing to put into it and that's fine.

We you know we we respect that but at the end of the day, like I said it is it is an individual responsibility. – Well in your position um in providing this service, you really have an inside look at the clinical experience of a lot of these

cutting edge longevity pharmaceuticals and and supplements.

What currently does AgelessRx offer and what have you what have you found out and discovered through your experience there? – Sure. Sure. So um so I guess we when we first launched a little over three years ago we started with Metformin. The reason being it's it's you know about a safer drugs you could find you know lots of data on it uh you know lots of data on its benefits uh in terms of you know preventing disease of aging etcetera etcetera.

I mean I don't want to bore people with the details of that foreman. You know there's a lot that's been written about it but then we started looking around and saying okay what other therapies could we could we offer you know safely through through telemedicine. And then we added um you know n.

A. D. Therapies um you know we have any you know any D. As a as an eye patch as a subcutaneous injection as a nasal spray as well. And uh you know we offer see Gm monitors for those people who want to um you know get more insights into their their sugar.

It's not so much a therapy as it is as a as a tool. And then we started launching low dose naltrexone. That's one of my favorite therapies. I've been prescribing that for years for for various different you know um symptoms and conditions and and there's a lot more interest in the last year or two in in its role and potentially um longevity.

And we're gonna be sponsoring a mouse trial soon uh to kind of investigate a little bit further and and now we're up to about I would say I don't know 20 or 30 various different probably about 20 different uh therapies of various different sorts on our on our available on through our through our platform. – Well let me let me back up a little bit on one question. That's come up with some of our discussions about N. A. D. Precursors and supplementation there.

You said you use patches and um and I. V. S. Is that what remind remind me what you said about for N. A. D. What's your program like? – Yeah so the so the N. A. D. That the first iteration of N.

A. D. Is was an iontophoresis patch. There was some research done by James Coleman that better humans showing that the anti free sous patch can boost energy levels. It's a medical device.

It's a one time wearable patch. It's positive, negative. It uses a kind of electric current to drive the charge molecule in this case any D. Under the skin into the circulation.

And so that was kind of our 1st 1st offering of entity. And then shortly thereafter we started offering self injection. So it comes a little vial patients draw it up and they kind of self inject uh the levels.

No it's not ivy it's subcutaneous – subcutaneous. – Yeah patients have the option of requesting I am needles if they want that. But you know most people prefer the subcutaneous.

– Oh interesting. And then then the question always becomes up. How do you track or what are your what are your goalposts for N. A. D. Supplementation?

In other words what sort what have you found useful to be monitors to know when you've gotten enough and when you're when you're in the range and what is the range?

– Sure. Sure. Um So one of the you know one of the things that that hasn't hasn't yet developed, we're looking into this but hasn't yet developed is uh is proper entity uh tracking. Um There are a few labs out there that we're looking at, you know, but you know any entities very unstable when it comes to you know, blood and serum levels and whatnot. Um So it's been been a little bit difficult to um from from a clinical perspective to offer it hopefully in the next six months we'll be able to offer an any D test. But meantime what we're telling patients is is kind of dose there any d based on how they on their on their symptoms.

And a lot of people request entity to help boost energy to improve their mood and sleep quality, athletic performance. And so we usually prescribe the anti D.

Injections in a range. Then we tell patients to kind of find their dose within that ray that kind of works best for them because everybody's a little different in terms of um in terms of um how much they need you know what the baselines and baseline is, things like that. – Yeah and you also mentioned now tracks him in as a as a longevity drug and we're you know familiar with it from from its use and addiction. Perhaps you could tell our audience a little bit about first how the drugs used conventionally and then what you do found out for longevity and what the mechanism is. Sure. Sure.

– So so LDN low dose naltrexone is a bit of a darling drug of mine. I know it's one of my favorites because it just it just seems to help with such a wide variety of symptoms and conditions. So for those are not familiar with it.

Metformin, NAD, and Low-Dose Naltrexone

So naltrexone um was originally FDA approved for alcoholism when you use that at the regular FDA approved dose of 50 mg sometimes 100 sometimes 25. So that's kind of the regular dose. It helps block cravings for alcohol.

So so when used in in in in that patient population it seems to curb um you know binge drinking and there was a as the story goes there was a physician back I think in the late eighties or early nineties Dr. Buhari. He he was looking for a way to help treat AIDS patients back when we didn't have any of the antivirals.

So he made a discovery that AIDS patient had low endorphin levels. And so he looked around and said well what can I do to help boost endorphin levels?

Maybe that'll help boost the immune system. And so he ran he ran upon Treksohn which had been I think recently approved then and he he tried it on patients at various different doses and then he noticed that it did actually improve their um improve their immune function and their survival time at least based on the limited studies that he was able to do with it.

And that that's when this idea of low dose naltrexone was born. And so what he found was you can get most of the benefit of the higher dose with much fewer side effects when used the lower dose. And in fact if you use the higher dose you actually don't get some of the benefits that you do with the lower dose.

And so that's that's that's the basis of LDN low dose low dose naltrexone. – Oh yeah and and co host Steve was saying that he used that for in a program for opiate addiction as well and a similar thing. So so that makes sense.

So now what is it what's the mechanism for longevity or whatever results there. That sounds exciting. – Yeah so so it's something that we're researching in terms of mechanism um the mexicans.

So like I mentioned before it's one of my favorite drugs because it works on so many different um symptoms and conditions the most you know prior to starting agents that I used to have a telemedicine platform just just to prescribe LDN.

And and I was getting a lot of patients with fibromyalgia, hashimoto's rheumatoid arthritis, Crohn's disease. And then there's there's kind of newer interest in in cancer and things like that. Although although a lot of the data on those are anecdotal but but what what LDN seems to be doing is is there's two proposed mechanism actions. One is the the the endorphins I was telling you about by temporarily blocking it at a low dose and that's why the low doses key you can rebound effect. And so you you have you get up regulation of the endorphin receptors and therefore kind of a normalization of that of that endorphin uh system. And and then the second it um Jared younger I think he was at U. C. L. A. At the time.

He he found out that it's a um works on T. LR. Four I think it's an inhibitor of Tl R. Four or an activator can remember which whichever ones. The anti inflammatory one but it works on the T. L. R.

Four except there um as a neuro anti inflammatory and it seems to be one of the more important ones out there. And um that that was the basis of his work for fibromyalgia when when he ran you know clinical trials on fibromyalgia back I think 10 15 years ago now in terms of longevity like I said I mean I mean LDN has been you

know studying in several smaller trials last year the F. D. A. Um granted orphan status for complex regional pain syndrome specifically for L. D. N. You know C.

P. R. S. Is um Crp s complex regional pain syndrome is a very difficult to treat the condition and there's no good drugs for it. I mean doctors tried gabapentin and opioids and all sorts of things but L.

D. N. Seems to be one of the more effective therapies for it. And that's why I was given orphan drugs tests while it's being investigated further. But where I'm going with this is you know um the reason why I think it's it's a it's potentially a longevity therapy because you know um it works on two of the major hallmarks of aging which you know inflammation.

Although I don't know that's that's almost like an indirect marker of aging um And and immune system dysfunction. And so I I think those two combined make it a very good candidate for for for longevity therapy.

The exact mechanism you know how well how potent you know that's all you know we're hoping to work on that over the next few years. Like I said we're sponsoring a mouse trial um using usually naltrexone and then combined plus or minus problem isn't for for as a comparison, you know, the gold standard right now is a problem, isn't. So we're hoping to launch that clinical trial in the next six months and then it will be about a 6-9 month trial after that.

We'll know, hopefully we'll know in about a, you know, a year, year and a half. – Yeah, well yeah, definitely, definitely want to get to rapamycin. But before we do this is so exciting. It's almost I wonder if, you know, since uh processed junk food and metabolic dysfunction is such a driver for chronic disease and ultimately longevity, if the junk food addiction um this this, you know, addiction drug might play a role in, you know, at some level helping people change their diets even if it's subconsciously, you know, who knows? But it's it's so amazing.

It's such an exciting time in longevity that all these drugs that have been used for a while are suddenly coming out. It's like the PDE five inhibitors phosphodiestrase better known as like Cialis Viagra for erectile dysfunction and now they're showing longevity effects that increasing lifespan, you know, obviously through nitric oxide effects, but but it's it's interesting now that Cialis is now looking at least being looked at as a longevity drug and then, you know SGL 22 inhibitors and you know, even even psychedelics for the BDNF effects uh and neural plasticity as possible longevity uh things. But back back to your your work.

So what um what other what drugs are you most excited about? You mentioned rapamicyn, obviously the you know the the elephant in the room? Maybe you could talk also your experience with that and in the trial that that's coming up if you're still enrolling people and all. – Yeah so I'm sure your audience has heard of rapamycin and by now.

But you know just just a very quick you know it's it's it's a it's a molecule found um that was isolated from the bacteria on Easter Island. And uh and was given the name of the medicine um after the island I think I think the native the native name of the island is Rappa mui Don't don't quote me.

Rapa Nui, sorry, I'm not I don't know how to pronounce it properly, but it was given the name Rapamycin actually was originally developed as an anti fungal or they're looking at it for an antifungal. And then they dropped it because um when when they when they were testing it um there was an immune um uh immune suppressing effect on it.

And so then it went from being an antifungal to an immune suppressant and then uh to a potential longevity therapy. And so that's the story of that is is very very interesting. There was a radio lab episode called I think the dirty drug in the ice cream top. It's a very very interesting story if anybody wants to listen to that story. But yeah I mean it's an M4 inhibitor in fact stands for mechanistic or mammalian target of rapamycin.

You know, it's such an important part of our physio the that that you know the the the this whole mechanism was named after the drug um Usually usually the other way around.

You know drug is found after you find identifying mechanism in this case. It seems to be the other way around. So

that that's one of the more promising um drugs that that that's FDA approved like as if a transplant rejection and there's also like a tumor like growth that it's also approved for and and and topically it's approved for I believe certain certain types of skin conditions.

But when used again, going back to Naltrexone we use it as a diff dose. It has it has much different properties. It actually appears to be a potentially an immune stimulator when you're using it at the low intermittent dose rather than an immune suppressant. You know, it it has um it has so many benefits at at the right dose that that you don't see at the higher dose.

And the promise there is is still being worked out and we still don't know that much about it in humans yet. – Yeah. And you currently offer rapamycin through AgelessRx? – We're working on it.

We're working on it. So you know, that was that was one of the first questions we got when we launched AgelessRX three years ago, you know, you know, can I get rapamycin from you and you know, as much as we would have liked to launch it, there's just so many unknowns for rapamycin because of this issue with the dozing.

Rapamycin Research and Clinical Trial Design

You know, there's a lot of speculation in terms of what the right with the proper doses for for for for longevity and and and people I don't know for sure at least not to my knowledge like nobody's kinda like pinned it down and said, okay this is the dose for for aging longevity.

There's a lot of like opinions about it, you know, educated guesses uh you know um uh extrapolating data, things like that. And so there's different opinions about what the dose with the proper dose and and and at those doses there are some again, anecdotal evidence of very promising results in humans.

And so that's why we we kind of took it up on ourselves to do a clinical trial randomized control, you know, gold standard trial, placebo controlled and all to to understand um the drug's use for longevity better specifically for longevity.

Not for not for cancer, not for you know immune suppression but for longevity and healthy populations. – And what will the what will the study tell you what is it Power to show, what are you what are you hoping to find out? – So so we just we just finished enrolling you know our our last last set of patients and and we hope to get them started on their study drug by the end of the year. And so everybody we hope that everybody will hit their midpoint by by middle of 2023. In which case we'll start looking at the data analyzing it. And if we're comfortable enough with the data at that point um then we might cut the study short and then start offering it more widely but but to answer your question um you know we have to pick a clinical endpoint.

You know you can't just do a study and and show how long people live just not a physical study. So we picked the visceral fat by a Texas scan as kind of our clinical endpoint.

And then we have a bunch of secondary endpoints. You know, body composition biomarkers, various different sorts um You know we're bio banking blood um so that we can we can go back and pull samples and you know as new as new tests.

You know biomarkers are you know are are introduced to the market. We could we could we could analyze it as well. And so so biomarkers is kind of our secondary um um uh end point but really honestly what what we're hoping to get out of it is a better understanding of side effects and and blood work safety data.

You know if you look at the literature on rapamycin used for the immuno suppressant dose. You know you hear you look at things like mild suppression you know you know anemia and platelets oppression white blood cell expression.

You know you read things about you know elevated cholesterol levels and whatnot. But again I mean almost all the literature is is in humans that that's in humans has to do with that daily you know immuno suppressant dose.

And so it's it's not clear at all how how any of that or if any of that translates to um to to the longevity dose in humans in healthy humans. So that that's kind of like in my mind that's the most important endpoint is is can we can we prescribe the drugs safely enough to healthy people and not not cause any anybody you know to have anemia or you know uh you know major infections or or anything like that.

– Yeah there's there's so much we don't know about rapamycin about the whole field of longevity. I mean you take the sort of the gold standards for for animal longevity is this interventions testing program where they talked about they raised mice and just let them live there three years lifespan and test different things and Rappa mice and to my knowledge is the best it's been the most effective drug consistently ever tested at the I. T. P. You recently take rapamycin and combine it with another drug that's less effective than rapamycin which I think you guys offer.

And when the mice get both of these drugs they get an effect greater than either wrap a mission or the drug a car bows together and maybe you could talk a little bit about a carbo is the effects on it. And you guys offer that as well.

– Right. Right. So kind of jumping away from rapamycin think we could probably go on all day but I'm sure you have other speakers and you know there's a lot of other information out there. Um But yeah so so a car bows is something that we've been, it's a drug that we've been looking at for a long time.

Um You know ever since we got started we've been you know, ever since that I Tp trial came out that showed that a carbo even by itself helped extend longevity in mice. You know we've had we've had you know requests for it to give a little background. Um A car bows blocks um The breakdown of starch in the stomach blocks the enzyme that breaks down star and so you end up not absorbing the the sugars starch. Starch is basically one long chain of glucose.

And you got an enzyme that called called amylase or. Yeah that cuts it all up because the other name for starches and close. So so amylase cuts up close into small little glucose and then you absorb it.

That's why we need like eat a bowl of rice. You know, it's, it's basically a sugar load. I mean it's probably bigger sugar load than than eating regular sugar because it's like pure sugar glucose and that and that starts there. So, um, so by blocking the enzyme, you block the absorption at least part of the absorption depending on the, depending on the dose. And so you don't, you don't absorb that, you don't get that sugar hit or that sugar spike.

It's, it's a great drug. I mean in many respects, it's it's not, it's not, it's barely absorbed, I think like 1% or 2% absorption. So it's like no drug interactions. It's really, you know, like systemic side effects. You know, uh, it's, it's generic, It's been around forever.

It's, you know, it's a very inexpensive drug. There's one small problem, tolerable itty, you know, people who take it, you know, the reason why nobody uses it anymore. Like I can't even remember the last time when I, when I was, when I was in primary care, I had one patient out of like hundreds of diabetics who was on, you know, pre coast or a car bows and it's only because he couldn't take his insulin during work. So and so endocrinologist here just just take, take our bows and uh, and the reason why nobody uses, because it, um, it effectively makes you amalos intolerant. I'm gonna coin that phrase like lactose if anybody's experienced lactose intolerant, you know how miserable that is.

Um, you know, you drink milk and then you get like gas and things like that. So effectively by taking a car bows at the diabetic, those 100 mg three times a day, you're making somebody angelos intolerant instead of lactose intolerant because you're blocking that enzyme. You know, lactose intolerant.

People lack the lactase enzyme. So, so you're effectively disabling the amylase enzyme. And so that's, that's one of the reasons why we didn't offer it because we don't want people taking the drug on a regular basis and then, you know, messaging us and calling us and say, hey, I'm getting like a terrible stomach cramps and diarrhea. So, so that's why we decided not to offer it kind of on the, on, on a regular basis, but instead use it more strategically to, to um, uh, kind of like augment a uh, an otherwise healthy die.

Um, and the way that we're recommending it is, you know, you know, there's no perfect longevity diet, but we're pretty sure that it does not involve, you know, a lot of sugar and starches and so anybody who who who's the longevity enthusiasts should be following, you know, a low to moderately low carbohydrate diet, but you know, we're humans, we like to indulge. and so to help protect against the glucose spike, you know, doing all indulgences like having a bagel or croissant or something like that. Or you know, fried rice at at your at your favorite chinese store restaurant. Then you can, you can help limit the damage by taking a little bit of a car bows before the meal or with the meal and that'll blunt the spike that you norma We would get from from from, from that kind of explanation. – Yeah, no, it's it's interesting, it says a lot about human nature and the mind and addiction, the fact that carbohydrates which are refined carbohydrates which are not required in our diet at all. You don't need them and their associated with diabetes and will cure diabetes if you get off of it.

Many patients, type two and are associated with longevity.

Acarbose, Diet, and Strategic Indulgence

In other words, you live longer or you live shorter if you eat them. It's interesting that people still, you know, innovation that cannot control their urges and impulses. So maybe uh maybe, no, that's life.

– Yeah. What's life? You don't have a few indulgences here and there, you know, uh you know the I think the key is to like to like be really good, you know 90% of the time in order so that you can enjoy, you know, you go to a birthday party and somebody hands you a piece of piece of cake, you know, if you do everything right, you know, that that that cake is probably not gonna do much for, you know, to, to hinder your longevity, but you know, there is a there is a potential price to be paid for that for that piece of cake, you know, um with, with this sugar spike and crash and for some people, it's really bothersome to them and their cargoes can help.

– Yeah, no, that, yeah, that's good. My parents used to say the same thing about cigarettes, you know, a couple aren't going to kill them for short and they're probably right, you know? – Right. Well, yeah, yeah, Well, that's the thing, sometimes you just can't have one. You know, you can stay away from sugar completely, you can stay away from alcohol completely.

You can't you can't stay away from food completely. – So, what is so exciting with what you're doing with a AgelessRX, what do you see, what do you, where do you see the company in 3 to 5 years or or indeed the whole longevity space in 3 to 5 years, What are you most excited about down the road that's coming? – Yeah. So what we're working on specifically, I mean, I mean, by the way, we're publishing a, like a trial on a car bows showing kind of, that blunting effect, I was telling you about when you kind of use it the way that we're directing it. So that that's that's an up and coming trial, that we have that we're publishing.

But yeah, in terms of AgelessRX, I mean our our our our mission or goal was to be kind of the go to platform for longevity. So we wanted to, you know, anybody who's interested in longevity um you know, if if they couldn't I mean there's a lot of great longevity physicians out there, like I mentioned Dr. Grossman earlier, you know, there's you know, there are many of them out there on the country, but not everybody can can access them, not everybody can afford them and we're not looking to replace those longevity, but I want to make that clear. I mean we're not like take the place of these longevity clinics that that do a really good job and you know, really on the cutting edge and we try to be on the cutting edge, but in a clinic you can really be on the cutting edge, we we learn from them and we kind of take what, what they've implemented and and and and try to bring it to to a wider, much wider audience so we can have a much wider impact.

So we want to continue to do that. Um you know, rapamycin are one of the things that will be that we're working on um you know, hormones in general, you know, female male hormones um are are very important to longevity.

Um so we're working on protocols to help optimize those for people. Um you know, things like peptides for example have a lot of promise and you know, there there are dozens of peptides, although the FDA has some issues with them.

Um You know, if we can resolve some of those issues or find ways around them, then we can start looking at those

on, you know, like, like we're doing with with rapamycin but ultimately it's it's not it's not, you know, you know, come you know, come by X, Y or Z from Z. Arc's.

It's it's, you know, take an assessment. The ultimate goal is take an assessment of some sort figure out um you're kind of your weak points in in your longevity.

And then how do you patch those up and then how do you improve your longevity? Um so that you're much less susceptible to disease, You're much less susceptible to um to ailments of aging. Um you know, to all the symptoms that go along with aging and and and and and allow people to be a lot more proactive about their aging rather than reactive. That that's where I that's where I'm excited about the future of AgelessRX and the future of longevity in general.

– Do you see stem cells or exosomes in the future for for you guys or or in general, is that something you're bullish on? – Potentially I mean, I mean I think I think they're one of the more promising therapies.

Um it all depends on delivery.

Future of Longevity Medicine and AgelessRx

Um You know there are some companies that are supposed to have like a self injectable exorcisms. I don't know too much about that yet. You know exosomes have been on our radar for for a while and I think a lot of potential it's just about the cost and the delivery mechanism if we can find a way you know first of all you know to make sure it's safe and and and at least you know scientifically has basis for longevity.

And then the next step is can we can we prescribe it you know through telemedicine and self administration safely? Then yeah I mean the sky's the limit.

I mean we've talked about you know a few therapies but what I'm really excited about is all the other therapies that we've yet to uncover. Um or that are just kind of like lurking in the shadows that like for example like L.

D. N. Where you know, nobody's really been talking about L. D. N. For longevity. And so and so our hope is to be able to maybe uncover those um whether whether its its pharmaceuticals whether it's nutraceuticals whether it's you know other other miscellaneous therapies like you know like peptides and uh and exosomes I mean there's there's so many things that we have in front of us currently today.

We don't we don't have to wait for you know some fancy biotech company to you know to to to you know, to come save the day with some fancy new molecule.

Not not not not that I'm saying we don't need those. I mean we will eventually need those fancy new molecules, advanced longevity even further. But there's so much that can be done today. I feel um that you know that that's just not not not enough is being done to to implement those you know what we do have. – Yeah. I want, yeah.

I want to be be respectful of your time and what's the best way that people can follow you on social media and also the website for AgelessRX and I think you may have an offering for people that they can that will be available on the page here with them as well.

They can check. – Sure. Sure. So our website is AgelessRX.com Um You know, that's that's are you can search for us on on social media. I tend not to be on social media myself personally, but I contributed through through through AgelessRX you know, hashtags and whatnot.

We'll be posting videos and things like that and also offering webinars, you know, for for an offering. I mean we have our longevity assessment um that we have available now. It's a it's a pretty good tool to help somebody assess their health and and and help determine some of their needs from a longevity perspective. And um we'll be continuing to improve that, you know, based on patient data and new science that's available free of charge on our website.

You know, you go to our website and there'll be a box at the at the top in terms of, you know, inviting people to take to take the assessment. Um I mean that that's that that's probably one of the better free tools out there uh to help to help you patients assess their longevity and try to figure out what their what their needs are. – Great. Well thanks again for taking the time to spend an hour with us today and and thank thank you again for the for the great work you're doing in the longevity space. – Oh, thank you very much.

Thanks for having me.