Introduction and guest background

Hi, everyone. This is your host, Dr. Joseph Antoun, and welcome to today's episode with Dr. Steve And it's going to be a very important episode. We're going to address fasting and fasting impacts on the pathways of health and longevity.

Dr. Steve leads one of the biggest integrative and functional medicine clinic actually in the US? And he focuses a lot on longevity. I'm going to he's going to talk more about it, but it's a pleasure to welcome you today, Dr.

Steve, and thank you very much for your time. Thanks, Joseph. Appreciate being here with you. My before we get into the topic, would you mind introduce yourself and your clinic and the amazing work that you guys do.

And then afterwards we're going to talk a bit more about the Tau pathway and the other pathways for longevity and fasting impacts and and some of the acronyms and syndromes that you coordinated that you that that are behind your approach to helping people live a healthy life.

Sure. So I'm Steve Amoils. I'm a medical director of the clinic in Cincinnati, together with my wife, Sandi. And the clinic is now called AIM for Wellbeing It used to be called Alliance Integrative Medicine, but we were recently acquired by a hospital and we are establishing a program of what we call modern wellness in Cincinnati.

So we're expanding it. And we are. Our clinic has been around since 99. We treat about 30,000. We have 30,000 patient visits a year. And we have a fantastic group of physicians, chiropractors, massage therapists, dieticians and a whole host of therapists that work together with us.

SAD syndrome and the mTOR longevity pathway

So we have a physician driven, team based approach and we've been slowly kind of progressing with how we deal with medicine. And I think too, I just finished a book together with my wife called AIM for Wellbeing as well.

And so we've been looking at various diseases and how they all fit together. And what we found is that people to go back to why we doing the talk is that we have a lot of patients who have been doing problems for years and we've also been trying to recruit into your study and patients for diabetes.

And what we found is that there seems to be a split of people who are willing to take health into their own hands and really want to help themselves and others want something done for them.

So they'd rather take an injection or a pill to lose weight. But for the people that really want to do something for themselves and we found that a lot of people were doing prolong were not were not overweight or diabetic.

They they simply wanted to be healthier. And I think this is important because what we seen and what we show in the book that we've all heard of, the SAD diets, the standard American diet.

And we know that the standard American diet is associated with a host of various diseases. But there's something that we call the said syndrome. And the said syndrome includes these diseases and more so the common diseases we see are things like insulin resistance, diabetes, obesity, cardiovascular disease, nonalcoholic fatty liver disease, chronic kidney disease, neurodegenerative diseases like Alzheimer's and arthritis, you know, all those kind of diseases.

And we look at them, they they seem to have a single factor that unites them and what it is probably is aimed for. So this protein that is switched on, on a constant basis is seems to be a critical factor in in a lot of these diseases.

And the the thing about mTOR, which we for for the audience who are not familiar with I'm told it is a protein that was found after they found a drug called rapamycin, which was found on Easter Island and Rapanui and hence the name rapamycin.

And it has it it works on name tau, which is called the mammalian target of rapamycin. And what we know is that entries for growth and development, so it responds to nutrients in the environment are protein and building blocks and it wants the body to grow.

And the problem is when the body's switched on, when employed, switched on continuously, you get diseases that we don't want to have. So we get all these diseases with excess too much and these are that seems to be the common theme among these diseases.

We also know that that when you when you use rapamycin as a drug and you switch off mTOR on a continuous basis, it helps things like autoimmune disease.

So it tends to stop the inflammatory reaction. We use it in kidney transplants to stop the rejection, but it doesn't do anything for aging. If you switch off at all on an intermittent basis, then it seems to prolong longevity.

It prolongs life and health and well-being, and that's what we're looking for. So the question is, how do you do that and should you just do it with a drug?

And the answer is you can't really do that. And the reason you can't do it is because the aim to exist in a very beautiful symphony with some other kind of uses, the one is called map kinase, a map kinase.

We want input to be turned off and map kinase needs to be turned on. And one of the ways to turn on map kinase is fasting. And so when we fast we can intermittently switch off m tor and prolong life.

And that seems to be a wonderful thing. And the the problem is how, how can we monitor these issues?

Fasting, insulin balance, and related signaling pathways

It hasn't been easy. But before I get to that, I want to say that there's another kinase of pP13 kinase and P13 kinase is found in cancers and and in children and the it works together in concert with these other two.

And what has been tried with medications is to switch of P13 kinase to prevent cancer. And when you try and switch it off, it doesn't do that. So the studies failed and the reason it is is because insulin works with P13 kinase and drives sugar into the cell.

So you need these three enzymes to be in balance. And in order to do that, you have to get insulin down. And then as we discussed earlier, you probably need growth hormone to come down to.

You need you need to change the balance of protein that you're eating. And and so I think we are we are finally getting to a point where you can see the changes that you are making.

And there are some exciting new tests that we doing. The tests, one test we use is an epigenetic test called two diagnostic. And many people in the in the audience will know Ryan Smith has been giving some wonderful talks and the if if we do a methylation test which can tell you your true age, your actual biological age and then we start doing some interventions, we're not going to be able to see how to age people backwards or at least age them in place.

And this is what we all looking for, because what we know is that when you age people backwards and you, you, you start changing this, you know, not only do you decrease their risk of all cause mortality, but you improve their sense of vitality, their well-being.

And hopefully we'll start seeing these diseases start reversing, which is what you see now with prolonged. Right.

That's diabetes. You being able to see for the first time how lifestyle and dietary changes can reverse aging and illness.

And so this is exciting work. And I'd like to thank Dr. Robert Lustig. A lot of he's he's done some very pioneering research in this area where he's shown all of this.

And I think that we're going to and also with Dr. Longo, we're going to we're going to start seeing this all come together to have. So I'm going to try to translate the critical information that you can debate into a I always say the market the fifth grader language so that those who are listening to us today that are not submitted with entry in the information, a lot of people that listen to us are actually medical doctors and or even biohackers.

But some of the crowds also have a little bit less information on the biochemistry and why what's the importance of enter? So I'm going to try to limit translate it and summarize it.

Know Dr. Steve as such and it's such an important topic today. We all know that high carb, high insulin is not good and diabetes is very well described.

And the pathway on the insulin, the CARB is very well. This type, what we have been interested in know the frontier of medicine in the last ten, 20 years is touching more on the mTOR pathway because we moved from carbs, we went on proteins and we thought proteins are the best way to go, but proteins that increase IGF in the blood that triggers toward pathway are actually helping us to age.

Even so, if you have a high level of protein all the time in the in the body or if you're over triggering the pathway for a through other mechanisms, we're also pushing aging.

When you see the muscle growing, a lot of us are growing and drinking proteins all the time. And I think we're over protein is eating America. I call the diabetes a protein.

You're always triggering the tau pathway in inducing proteins. Increase IGF, the insulin like growth factor and triggers the tau pathway. And then we're pushing the aging of the body.

So it's a dilemma and this is why I'd like to see we're saying what is the balance? Because you do want to grow. This is how you get your vitality design.

You get your and the short term benefits from that and the seller operations. If you shut down the pathway with with met with rapamycin or other correlated pathways, you're inducing also a less of a body energy and growth so the body doesn't stimulate immunity, etc., which you need in certain conditions if you transplanting a kidney or if you have autoimmune disease.

So how to strike the balance of growing without aging and the opposite of it is maintain muscle, maintain immunity and maintain vitality.

Biological age testing and reversing aging

And this is where fasting is working in all these pathways, the PGA, the tour pathways and the RASP pathways. And what Dr. Steve is explaining is that intermittent stimulation and not gives the balance of life.

You come you fast, you don't regulate a little bit the thought pathway and also the curves pathways induced by the rejuvenation the cell as a response to that to that situation then you reinforce and then this is where you get a we trigger and this intermittent balance balancing act seems to be which prolonged those for five days a month.

And this is why it's five days only we ask people to go back and eat normal after is giving that impact on the body as rejuvenate aging without actually decreasing vitality or vibrance and keeping the balance of life.

And, you know, off of record, we were talking with Dr. S. V., he's a global traveler and he's a little bit of makes up

under before but biologist and historian and tracking you know how our ancestors were able to stay vital and live long I mean they were dying from acute disease, not from Alzheimer's or or diabetes.

And trying to put it all together how human evolution, which we always had to fast and eat it was the cycle of life. We never had food all the time. And honestly, we cannot live without food also all the time.

How to bring this back now to how the science I've identified the importance of that and how do the leading doctors such as such as yourself but to see is implementing this in the clinic for people that are healthy to stay healthy longer but for people with starting to develop certain health condition also to pull them out of it.

And I would love if you can share some of your experiences and I think some of it is in your book and some of you implement it in your practice. How do you how do you use fasting and how do you balance, you know, stimulating and regulating the thought pathway to optimize the longevity of your of your patients?

Well. The optimum way to do that, I think, for all of us, is still something that we are studying and looking at. But it's clear from the work that you doing that at least, you know, insulin resistance is such a critical factor in all of these things.

And it's wonderful to see from from the studies that you do and how people are actually going backwards, right. So so what we've as a partner of mine, a physician, used to say that the practice of medicine is nothing other than the adequate documentation of the natural history of a disease.

And because no matter what you did, you just saw people getting worse and worse. And what we're seeing now that's not true is that there are lifestyle and dietary interventions that you can do that actually reverse your aging backwards.

So we'll be able to not only measure age with these methylation tests and within 3 to 6 months, you can start seeing that if you did an intervention that you can actually change the rate of aging and you can change someone's biological age to come down.

And we know that there are certain diets now that will age you backwards eight years in five weeks. And I think that there have been studies done on that.

And I think this studies it'll be once we start looking more at prolonging it, what it's doing on an aging basis, we'll be able to see some similar things.

But what we do know is based on the studies you said that we can at least reverse diabetes and insulin and insulin resistance, and that is the core of how you do it.

So what what we've been finding is that we are always looking to promote healthspan and lifespan. So we what we want to do, we want to make sure that people are feeling better.

And what we find is that when they do a fast for five days, they age the way it's done with the glycerol drink. It is as if they don't feel hungry, which is a big step forward in terms of fasting, because I learned fasting 20 years ago from a British naturopath and we still do a lot.

And one of the problems that always was a big deal with was the hunger. But with prolonged, you don't get that hunger. So now we are able to give people something that's palatable and that they can that they can carry on working and carry on living without much problem.

And what we found is that, and I can say this personally, too, is when you when you use it every 3 to 4 months, just on an intermittent basis, it gives you this upswing where you start feeling better, you're not quite sure.

But it probably relates to the rise in stem cells and the resetting that you get of of these systems. And so we are using it a lot for for people who are just interested in well-being.

And we find that that's probably the biggest time that they use it. So you don't need a reason. And if you have a reason even better, but you don't really need a reason.

And once we figure out what it's doing to our aging, that will be the reason, because then we now people will know they'll have a target, they'll be able to see what they're doing.

So if I can suggest anything for you, that's another topic that I would look at, because you can now that we have these methylation tests for aging, we can actually see the impacts that you may think very quickly.

So you've if you've courted me here because now I have to reveal but we have done the testing. It's never published yet. But nature, as you know, the number one journal in the World Science Journal in the World just accepted our article on pro-life for reversing biological age.

And what we're showing is the three cycles would give you a two and a half years of bio age reduction.

ProLon results and the ultimate longevity protocol

And then if you do it between age 50 and 73 times a year, so this is what we're calling the ultimate longevity protocol. You do prolong three times a year between age 50 and 70.

This is a we can talk a lot about that. And you mentioned the mTOR pathway and the stimulation of age 50 to 70 is the most critical, you know, aged 4 to 4 for longevity because it's younger age, you still have enough stem cells.

You can fight, you can heal. You're not going to develop. Most of the chronic diseases medicine, figures of allopathic medicine or traditional medicine picks up the disease after age 50, 60 and 70.

But it's too late that forming Alzheimer's forms at age 40 and 50 cancer starts at age 50 and 60. Cardiovascular disease at that 50 to 70 age. For everyone listening to us today is when you want advice is when you want to make sure that you take care of preventive measures.

So what we showed, if you do problem three times a year between 50 and 70, you're going to get it 11 years of by your age reduction. And there's. Nothing.

That has shown anything close to this. Yeah, I hopefully by we're reporting now but hopefully by the time this is played the article is out because otherwise it be really breathing but 100% what you're saying is is on track and we have the data and we're going to publish it very soon.

Yeah. So I think that that is great news and I think it it is what people are feeling subjectively, right. So, so they feel younger, they feel more healthy and, and when they do this and so and the correlate is for every year you you reduce your age, you cut all cause mortality by about 7%.

So think of what you're doing in staving off all these diseases. And the problem is we you know, it's very difficult to do a double blind placebo crossover study on a large population.

But when you use these methylation tests, you can do it on one person. So you can see what the trajectory is and and you can see what the age is, the rate of aging.

And then you do some prolonged interventions and then you see afterwards, how do they do? And you couple that with some other things. I think we're going to really start seeing huge changes in in, you know, in the kind of population that we interested in.

Unfortunately, I think we're also going to see a split in the population's health. So there's a group of people that are getting sicker and sicker. So we know the people who are living on this sad diet that are, you know, constantly under the let's call it this am told on switch.

Yeah, they they are getting sicker and sicker. And you just walk around in them in airports and I see people and they look like Big Apple mushrooms, those that are highly inflamed.

And I go, wow, this is these are people that are just this is not even. But this is off topic. I have but one of the biggest questions when I travel is why why all the restaurants at the airport are just unhealthy fast food.

Why it's. An. Unbelievable is this. Yeah. I cannot eat at any of the airports you just these really are the explanation how these in most airports are run by cities.

It's not like a private or for profit entity. And how I mean, this is where this is where I've always had that passion to intervene somehow and try to to slap all these restaurants into healthy food, especially because that travel is looking for this this kind of food as well.

That's what I think. Yeah. Well, another off topic is the food companies, right. Because they unfortunately the whole drive to add sugar, salt, fat to all the foods and make them nice to eat or what we think of as nice is, is really killing the population.

So I think we're going to get a split between a group of people that are going to continue to eat and live like this, that I'm going to live shorter lives than their ancestors and then we're going to get another group of people who are going to learn to age themselves backwards.

And and that's an exciting time. It's something that's never happened before that we can actually start reversing aging. That's fantastic. Just to clarify it for everyone, the focus on aging is is and this is the new way we approach medicine.

You know, folks like myself and Dr. Steve is you know, 90% of us in America and almost 80, 80% are under where there's a little bit we're a little bit more healthy internationally.

But a good chunk of all of us will be will die out of one of four diseases. And they're all age related, whether it's diabetes, cardiovascular cancer and Alzheimer's.

So the the in traditional approach, we specialize in each one of the diseases. And we we talk about genetic predisposition and we see people after they're sick and we give them a few pills that they have to take for the rest of their life.

And then it's not just you mentioned we take notes of their you know, of their development pathway and progressive pathway and then they get complication in that.

And for us, the new medicine should measure and have a lot of, you know, statements on this.

Public health, food environment, and closing remarks

The unit of measurement of health should be the bio age of the body. I think I personally think it is human to come up from a public health perspective and a health policy perspective.

We should unite around measuring how old are we from the inside? Because 90% of us will die from one of the age related diseases. So my biological age will truly be the best correlate of when am I going to develop a chronic disease or when I'm going to die.

And this is what Dr. Steve is mentioning here. And there's no one gold standard for measuring age is a horvath's test. There's other tests in the market.

But I think this is a big shout out for public health and health policy to come in and agree on a standard measurement. And it could be maybe the average of three or four measurements, but that could be essential information that all of you should know at some point of your life.

How old are you from the inside? Because that age is going to get is going to tell us how soon you're going to get one of the four killers and then how soon you will die.

And because today we don't have a standard way, neither the FDA can step in and help because there's no definition of aging or what is aging or what is old age or young age or pre age or is aging a disease.

And these are all questions where we're all working on. But hopefully soon we can define the unit of measurement of aging and therefore approve officially intervention for anti-aging.

Up until that day happens, we pioneers in that field are trying to bring ways to reverse your bio age. One of them is through a line or fasting and in other ways eating healthy, etc.

There's a lot of discussions around REP, a lot in different versions of rapamycin, metformin, MNM, NMN, NR's and a lot of other interventions. We're happy to be in a position where prolonged is the only product that has been tested for that age, for aging and positive for it with the pro as the only product, by the way, that has a patent in the US internationally, I'm promoting human, I'm promoting longevity and regeneration in pioneer clinics such as yours, Dr. Steve are using it for this purpose.

You I agree with you regarding the the tau pathway overstimulation and it's an aggregate of the tours and the PGA and the rest meaning we're over, we're eating a lot of carbs and a lot of an insulin is always high and we're eating a lot of proteins and the tau pathway and IGF IGF is higher tau pathways or stimulated.

And this is the basis of that entire metabolic mental inflammation and metabolic disorders that are taking us into the pathway of diabetes in the Patriots, Alzheimer's in the process of cardiovascular and other health conditions.

Right. And kind of a unifying theory. Right. And it's it's it's instead of focusing piecemeal on all these different diseases, we're going to be able to go more towards a core and the root of these and then start working backwards.

But it's as you say, it's more than just this. We have to get the food companies on board and teach people how to live healthier lifestyles. And that's that's what our clinic is trying to do.

Well, I couldn't agree more. I wanted to thank you for your time today. Thank you for everything you do. You guys look forward to visiting your clinic.

But I've seen online you have an amazing number of physicians, an amazing number of various practices that you all integrate together to give the best care for you to patients and and hopefully we can either work together closer to to see how we can change your patients lives.

When I appreciate you for your time today. Thank you so much. Thanks for having very much. Thank you. Take care. Bye bye.