What We Can Fix About Aging Right Now Transcript

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Introduction to Longevity and Aging

What's really exciting right now in the field of longevity is our understanding of what the underlying drivers of aging are and thus what we can do about them to achieve longevity.

If we could just solve cancer across the board, We would only add maybe three years to people's average lifespan. If we could do cardiovascular disease, right, the biggest killer, we would only add like five or so years.

But if we can actually address what we call those hallmarks of aging, those are the cellular processes that happen as we get older. The changes at the cellular molecular level that ultimately underlie all diseases.

If we can start to address those, then we can actually address every single disease or the chronic diseases of aging. What if aging isn't about slowing down, but leveling up?

I'm Dr. Isaac Jones. This is the Longevity Leaders Podcast. I'm with Helen Messier. She is the chief science and medical officer at FountainLife. And she is just an amazing wealth of knowledge when it comes to longevity, regenerative medicine, you know, all of the omics, the metabolomics, the genomics, the proteomics.

It's just amazing. All of the things that she has in her brain. AI is going to take around a thousand years to catch up to Helen. But, uh, you know, she has been from the top people in the industry considered to be one of the top longevity doctors in the world.

So thank you for being with us. It's a pleasure to be here with you. Yeah, thank you. Um, I would love to learn, you know, what you are seeing right now that you feel like is exciting and that you're feeling like this is going to change healthcare that maybe people haven't heard of or maybe they heard of but they don't know how to apply or understand at a certain level and what excites you about it?

Wow, that's a big question. I'm not going to talk the rest of the time.

Hallmarks of Aging and New Therapies

There's a lot of things but I think what's really exciting right now in the field of longevity is our understanding of what the underlying drivers of aging are and thus what we can do about them to achieve longevity.

You know, if we could solve cancer across the board, we would only add maybe three years to people's average lifespan. If we could do cardiovascular disease, right, the biggest killer, we would only add like five or so years and both of them together, not even 10 years to the average lifespan.

But if we can actually address what we call those hallmarks of aging, those are the cellular processes that happen as we get older, right? The changes at the cellular molecular level that ultimately underlie all diseases.

If we can start to address those, then we can actually address every single disease or the chronic diseases of aging. And that's really exciting. So our understanding of that has really come a long way.

And then our ability to start to intervene. I was just at a platinum longevity event, Peter Diamandis' event. We had all of the scientists presenting and what their research is, and we are very close to therapeutics in addressing these.

So in terms of, you know, genetic therapy, delivery using adenoviral vectors, the ability to modify our epigenetic programming. I mean, we are at the cusp of being able to do trials now in humans on some of these.

So I think it is such a fun time to be alive. Right. And, and at the same time, we also understand that there's a lot we can do now. Right. So we don't have to wait.

We don't like they're coming and they're coming quickly. But right now our job is to use what we know to stay as healthy as we can, because a lot of things we know why lifestyle works.

We know why. Sleeping and eating right and exercising we understand the effects on those hallmarks of aging and then we also know certain Supplements and and they have dramatic effects on the hallmarks of aging so we can absolutely Do stuff now keep ourselves as healthy now so that we can be there for these huge innovations that are coming very closely in the future Wow I heard that there was a trial.

This was just something somebody said to me just the other day, um, where they're reversing type one diabetes. Um, and, and through, through genetic, um, genomic, you know, injections or something along those lines.

I don't exactly know what, what they said, but it's something that I'm like, wow, type one diabetes. Yeah. That's crazy. And that's an autoimmune disease.

And the other aspect of what's coming down the pipe and actually is here already is the harnessing the power of the cell, right? Cellular therapy, so stem cells and other things because we don't understand everything the cell does.

We understand a lot, but I think it's just the tip of the iceberg of what we really know. And there's so much more to discover that when you harness that wisdom of the whole cell, we are harnessing everything that we know and everything we don't know.

And so using cellular medicine, I think, is really, really powerful right now. Now we have to do it safely. There's a lot we need to understand. You know, one of the things you're mentioning, this reversing type 1 diabetes or other autoimmune diseases, there's a, it's thrown biotechnologies is doing what we call stem cell education.

Yeah, you're getting amazing results. And we're getting some really interesting results with that.

Cellular Therapy and Stem Cell Education

You know, that's Dr. Yong Zhao that really is driving this and discovered this and really invented this technique of taking your immune cells, so doing a plasmapheresis, taking your white blood cells, and then co-incubating them with cord blood stem cells.

So that's from the cord blood. And overnight, just an overnight incubation. And during that time, there's a release of all of these healing growth factors.

There's even mitochondrial transfers. So you get the young mitochondria in your white blood cells, your immune cells essentially, and then you inject only your immune cells back, not the stem cells.

And that is then seems to almost like push the reset button on your immune system. And we have seen, and he has evidence of reversing alopecia totalis, diabetes type 1, as you said, Parkinson's, ALS.

We've seen dramatic improvement with all of those diseases. I remember you showing me a video. I showed you the video. Of a person that couldn't even lift their hands because they had ALS.

less and then two weeks later one of your patients is able to just go boom yeah yeah so those are the type of therapies that are now in clinical trial right there but we need to do these trials so they can become much more broadly available and as you know we're here in Florida that Florida has passed a law within the state to allow stem cell treatment for certain indications right so Now that this is available, we are ready to collect the data and really figure this out.

And that's a really exciting time. That's amazing. That's amazing. So I'm sure some of the people listening would love to learn, like, what are some of the geeky stuff that you do for yourself?

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What do I do? I mean, daily, I'm pretty probably bad, you know, a cobbler with no shoes. The kids don't have the shoes, but because they do a lot of traveling, I know, as you do, and that messes up your circadian rhythm quite a bit.

No more traveling for Helen. It's, you know, going across those time zones doesn't help a lot. But really trying to do the lifestyle stuff. I've always, you know, tried to eat a very healthy diet, plant forward, getting enough protein, very clean.

I really focus, exercising is really important daily, doing, you know, both cardio and muscle strength training.

Personal Longevity Practices and Plasma Exchange

That's great. You know, that's the basics, right? Sleeping. I love my sleep. I need my sleep. It's really good. And so those are things I do. Now they're not geeky.

There's what everybody should do, right? I think that's just really the basics. I have my supplement stacks that I rotate around on certain things. Like we shouldn't be thinking the same thing every single day, but we should rotate them and put them together.

And then, yes, I have tried therapeutic plasma exchange, which is where you take your blood, essentially, and you run it through a machine that separates all of your cells, your white and red blood cells in your platelets, collects those, and then kind of throws away the liquid portion of your blood that contains the plasma, essentially.

And you throw that away and replace your cells back and platelets back with fresh, clean, just saline and albumin. And that has actually been, there's been some really great studies that Dobri Kiprov's published one that showed it reversed a lot of the hallmarks of aging in terms of help people's grip strength, walking speed, their epigenetic or biological age actually all improved from six treatments of that.

Initially, it was shown to affect Alzheimer's and slow down the progression of Alzheimer's. Interesting. It's a technology that we've used in hospitals for years and years, used to treat autoimmune diseases like Guillain-Barre, but now we're realizing that this can be very helpful in longevity.

also removing toxins. Just on a pause there, because I just want to double click in here and just see how did this impact you? If there was any, did you feel anything?

I just did one treatment and the recommendation is at least three to six treatments to really get a beneficial effect of it. But immediately I noticed that I actually all my rings were looser, right?

Everything was kind of like my any inflammation I had seemed to have been really decreased. I remember I was going to an event that night and had to wear these shoes that fit me just fine and they were little pumps falling off my feet.

So I was like, oh, this is interesting. Yeah, that's great. Well, weight loss or so. Yeah, like, or whatever. Inflating

inflammation with this guy. Yeah, that's really cool.

Sorry. Continue with your thought training. No, I was just saying that there's a lot of interest now in using that same technique to remove toxins. Yeah.

So a lot of toxins, you know, we can metabolize and get rid of, but certain of the toxins like the microplastics and the PFAS, those forever chemicals.

Oh, yeah. Our body hasn't evolved to actually be able to metabolize those or get rid of them. So we're seeing, and a lot, there's some studies being done right now to see if you'd actually do that plasma exchange to get rid of that would remove those microplastics.

It's crazy how much plastic gets bio bioaccumulates in the brain. Oh yeah. It's just, amazing how it can actually get through the blood brain barrier into the brain and impact us in such a negative way.

You know, and the study that came out last year on cardiovascular disease and how it gets into the endothelial lining and destroys the kind of the arterial wall that then leads to plaque buildup and whatnot.

They found in all of these, this research, they found plastic was like inside of all of these different inflammatory areas of the, the arteries. It's crazy.

Yeah, they've, yeah, exactly. They, you know, on autopsy find or another look, microplastics and cart, you know, cardiovascular plaque. We're finding it in the brain, as you said, in different organs, it's accumulating.

And it's interesting when you look at sort of autopsy results from, you know, a decade or more ago and you compare them, the level of plastics in people's brains has been increasing.

Wow. And so that's why I'm exposed to more and more of it. I'm just going to walk over here and show you what I'm drinking. Show him the glass bottle that he drinks out of.

Just because like, I mean, I'm not being paid by this company at all, but I just like we ship in boxes of glass bottles now because I just don't want any plastic in my body.

You know what I'm saying? It's really hard to avoid, isn't it? You know, I, my new year's resolution was I'm not going to buy any plastic for a month.

I thought, okay. And I lasted maybe a week because it is not plastic bottles, but everything's wrapped in plastic. Everything. It's hard to. Get something that's not, doesn't have plastic in it.

It's garbage bags. Like everything, right? Yeah. It's, uh, it's really crazy. There are some really interesting brands that are like, uh, it's like a Ziploc bag.

Toxins, Microplastics, and Practical Avoidance

It's, um, but it's all corn based and it decomposes, but it's like, and then they, they make garbage bags. So I'm feeling better about like what is being built right now, which is, which is, which is great.

Um, But there are ways that we can get rid of toxins out of our body. As far as I know right now, we don't have like a chelation agent like we do for say mercury or cadmium or lead or uranium or something like that to help get rid of that out of the body like some of the ones that we have right now for plastics.

Just some practical tips potentially that could help would be saunas, right? Sweating, would you say? Yeah. We don't know if plastics go out in sweating.

It's a, it's a good, you know, it doesn't hurt to do the saunas and get the phlegmatic effect of it too, which is great.

But in terms of fiber, we know that fiber binds to some of the plastics and the PFASs.

So eating a lot of fiber in your diet, I think can be very helpful. Really harnessing the power of your microbiome for doing any kind of transformation like that is also helpful.

And then really it's avoidance and avoid what you can. Even clothing, right? Isn't that crazy? All of my clothing was Lululemon and Viori. And they're like, Oh, my, my, my brother-in-law is non-toxic, um, dad on Instagram.

He's got almost a million followers and he's always talking about non-toxic clothing and all this stuff. And, and we're, we're on family vacation up in Canada and this nice little lake.

And he's like, you know, a lot of the clothes you wear is plastic, right? And I was like, no, I'm like, it's so soft and nice, you know? He's like, all those little micro particles get into your skin, into your pores, especially if you're sweating and then they get into your bloodstream.

And I was like, shut up. Right. So I, but, but I looked at some of the shorts I had and they were worn. They were worn down, like on the side that there was touching my skin wasn't as fuzzy on the, as on the outside.

And I'm like, Oh my gosh, this stuff is literally getting onto my skin. And the craziest thing. So his daughter comes from my 40th birthday a couple of years ago.

We had this really great party and we had these plastic chairs outside. They're like designer, nice chairs. And his daughter sat on the chair and she got like plastic shards in her leg.

created a rash and you know, the sun comes down into the plastic, you know, it breaks it down and then it created almost like little, little needles, like micro, micro needles and went into her leg and he's like, you got to get rid of those.

And I was like, you're right. Yeah, no, and it's everywhere. Even think of the kids' toys. Yeah. Think of like Lego blocks or any of these plastic toys, if there's any kind of scratches in them.

Yeah. And they put them in their mouths. Yeah. Right. Or plastic cutting boards or, you know, it's just really ubiquitous. Getting me fired up over here.

We need to just build a business helping people like not consume plastic. Yeah, I know. It's crazy. Wow, that's really interesting. So with the practical things that you shared, those are really great.

There's some awesome advancements. You know, what do you see often into the future? If you could kind of vision here where we would be in five or 10 years from now, there's some people that have said, I can remember David Sinclair in like 2016 is like two or three years from now, we're going to be able to live forever or something like that.

And now he's getting like kind of beat over the head a little bit because they keep repeating that like, Hey, you said 20 years ago that we'd be able to live forever by now.

But you know, what, what, what would you say that you're like, practically, this is what I think we can, we could, we could talk about the longevity escape velocity, right?

Future of Personalized Longevity Medicine

The idea that you can, The advancements are so quick that if you can keep taking advantage of each advancement and live that much longer, you'll actually escape the death or alone.

So I don't know. I don't know for that close yet. I think we're. Just like AI suddenly bursts on the scene and suddenly boom, it seems like it's happened so fast and how quickly it gets better and better.

I think that's happening with biology and biotechnology too. I think it's really hard to predict because I think there's so many people and companies and universities, scientists working on this that Um, I think we're going to be surprised, right?

I think I do organ regeneration and, you know, epigenetic programming is doing that at exactly. And, you know, so we can start replacing organs and we can, you know, looking at induced pluripotent stem cells, for example.

So you can actually take your cells. Yamanaka won a Nobel Prize for discovering what we call the Yamanaka factors, which are transcription factors that take an adult cell and turn it back into a pluripotent stem cell.

And so there's a lot of research being done using these induced pluripotent stem cells to then differentiate into different organs or different tissues or You know, in our understanding of genetics and ability to manipulate genetics now is also skyrocketing.

Yeah. So it's, it's hard to predict. I think it's pro, you know, it seems like a long way off, but it'll come on us faster than we think. I do. I believe that.

And I think that with all of the different computational data sets and AI that we have, we can, and digital twinning now is very interesting because they have data, let's say on the microbiome and then they can test your microbiome.

They already know how the bacteria responds to all these micronutrients. So they can almost kind of test your microbiome against, you know, literally one of the companies that is here is doing this and they can test it against hundreds of different, um, AI, uh, digital twins.

Like they, they, they put you, against all of these different nutrients and factors. And then they can be like, you responded really well to this and then you get like a custom kind of recommendation for lifestyle or for nutrition or for prebiotics, postbiotics, probiotics, you know what I'm saying?

And I think what you're bringing up is this whole idea of personalized medicine, right? Precision, personalized medicine where there is not one size fits all.

We say everybody needs to eat well, sleep well, exercise, but some people are night owls, some people are early birds. And we are all genetically uniquely biochemically different, and we need to do sort of different things, subtly different nutrition for different people, all of that.

I think we're starting to understand how each person is unique and then what we can do to intervene. Yes. Yes. I love your humility in this longevity space because it's like, you know, so much, you know, the top scientists, you know, a lot of the, you're invited to all these private events.

And you know enough to know that we don't know everything and that there's still a lot to learn. And I find that the smartest longevity leaders that I've connected with are like, look, we know a lot about this, but what we don't know is way more than what we know.

It definitely keeps you humble, right? It's such a fun time to be alive. But when it comes to biology, you know, we think, oh, AI, we're in the age of AI, which is phenomenal.

Amazing. There's so much it can do, but it's trained on our current human knowledge. And there's so much of biology that we just don't know. So we have to keep discovering, right?

We still need to do those bench experiments, the human trials in order to really understand what's going on. AI can help predict, it can help generate hypotheses.

There's so much that it can do to make things move faster, but we still need to do that science as well to keep learning. Wow, Helen, you're amazing. Thank you so much for your time today.

We're going to double click into more of these topics in the future. This is the Longevity Leaders podcast. I promise you we'll have Helen Messier, Dr.

Helen Messier on this podcast again in the future, if you're okay with that. Absolutely. It's fun. Yeah, thank you. I appreciate it. That was awesome.

Appreciate it. Thanks so much. I look forward to adding more value to you. Go ahead and click the link below if you're interested in subscribing. And if you liked this episode, please share it with other people that you feel like it could add value.

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Until next time, stay strong and live long.