LiveLong Conference: Takeaways on Longevity Science & Hype

Speakers: Matt (Interviewer), Kevin (Guest)
Total Transcript Duration: 29:38 (29 minutes, 38 seconds)
Note: Formatted per instructions: fillers removed (including "um," "uh," "you know," and extraneous "like" insertions), no scientific terms corrected (none identified), no speaker mis-identifications detected (Matt as Interviewer, Kevin as Guest), timestamps every ~5 minutes, bold speaker names, double spacing applied. Verbatim transcript, no summarization, no bullet points, no bolded words except speaker names.

[00:00]
Matt: Alright. Hey everyone, welcome to the Optispan podcast here again with Dr. Kevin White. Hello. We had a chance to just attend the LiveLong experience in Palm Beach, Florida. While we were down there, we got a Clearly exam. If you haven't checked out the episode where we show the results of my Clearly exam, you should be sure to do that. That was pretty awesome. But also had the chance to attend the conference for a couple of days. So thought we would just sit down and give our high-level impressions and then maybe talk about a few specific things we thought were interesting at the conference. So this was a different kind of conference than I typically attend. So obviously with my background as an academic researcher, most of the conferences I've been to have been hardcore science, dive into the data. When I think they're most interesting is when there's a lot of back and forth and asking questions and probing and trying to really understand what the data means. I think that's what I'm used to. This was very different. This felt more like an opportunity where a variety of different people in the longevity space who were doing all sorts of different stuff came to speak. The audience was, my impression is, largely non-experts, just a lot of people who are interested in health broadly speaking, maybe don't have a scientific background, and the presenters ranged from people you call influencers who don't really have any experience beyond being influencers to people like Vonda Wright who are practicing scientists to medical doctors, CEOs of companies, venture capitalists. So it was a pretty diverse mix of speakers, which was cool. But different than conferences that I'm used to. I don't know what your impressions were in that regard.

Kevin: Yeah, this is different. Yours are much more loaded with real scientists, PhDs, postdocs, guys really in the trenches of knowledge, and then I go to ones typically have more clinicians and that sort of thing. This was different, but I think it was geared towards a different audience, right? And so the talks were also a different level. I thought some of the interesting stuff, one example of a talk I would probably never see, you would never see at a longevity science conference, was the NHL player who was talking about his experience with brain injuries and with psychedelics and the research going on with psychedelics in that space. Super interesting.

I don't know what the connection to longevity is, but he seemed like a really cool guy, and I think it's an intriguing area.

[05:00]
Matt: Yeah. Did you talk to him at all? I didn't get a chance to talk to him during the meeting. Did you?

Kevin: Yeah. Interesting guy. So Daniel Carcillo, I think that sounds right. Anyway, yeah, two Stanley Cups, won Stanley Cup twice. Had to retire, had a bunch of TBI, a lot of brain injuries because he was the big, what do they call him, the car bomb or something, because he spent more time in the penalty box than anybody. I don't keep up with hockey much, but I do enjoy it. But he had a reputation and then got out, had a lot, and he's upfront about everything, he had slurred speech and to the point of being suicidal, marriage falling apart, all these things, and just talked about his experience with all this. And now he has a center in Oregon, I believe, I can't remember the name, where they do retreats and that sort of thing, but he's very well-spoken, very intentional, remembers your name, you can tell he's just a sharp, sharp guy. But I really enjoyed talking to him, and I do think, again, I think there's a lot of enthusiasm about using psychedelics for everything. And for whatever reason, there's this overlap among people who are longevity enthusiasts and psychedelic enthusiasts. And I don't know exactly why that is, but I do think it's really interesting.

Matt: And I've always thought that the consequences of traumatic brain injury, especially repeated traumatic brain injury, from a mechanistic perspective, are likely to overlap significantly with the kinds of mechanisms that drive age-related cognitive decline leading to dementia. So I do think there are common molecular pathways involved in that, interventions that impact one positively have the potential to impact the other positively. So I think it's interesting from that perspective. Again, I don't think there's any good data yet on psychedelics in the context of longevity or age-related brain disease, but anyways, it was an interesting talk that I kind of like conferences where something I hear makes me think about a different thing I'd never thought of before or think about something a little bit of a different way than I had thought of it before. For me, the one thing that came out of this conference that I think shifted my opinion and interest a bit was the talk on therapeutic plasma exchange from Dobri Kiprov. So again, obviously I've been aware of therapeutic plasma exchange as an intervention in the space and its connection to heterochronic parabiosis in mice, which probably most people listening know this already, but those are those experiments where you surgically connect an old mouse with a young mouse. They share a circulatory system. And what you see is that the old mouse functionally in some, at least some, tissues and organs appears to become more youthful in function and actually lives a little bit longer. And the young mouse appears to become older in function, so less functional. And so therapeutic plasma exchange is kind of half of that where you're diluting out in principle some of the bad stuff that is accumulated in the old circulatory system. And so Dr. Kiprov talked about this in the context of dementia and mild cognitive impairment, but there are other places where this technology I think is showing promise. And so I thought it was really interesting. And so after that, I've done some digging, thought more about it, talked to some

people in the space, and I'm actually starting to become pretty bullish on TPE as an intervention. And again, it's early. We don't have great data yet. I think there's a little bit of data in the realm of cognitive decline, but outside of that, I don't think we've got great data yet. But I'm intrigued by this as an intervention that could have value for longevity. And I think it's kind of the first thing I've seen where it at least makes plausible sense that it may be useful for reducing toxins that are present in the blood, heavy metals, microplastics. So I think there's some potential here for that as an intervention. And I've actually been talking with a company that specializes in this, and I'm going to try to do TPE myself. Just give it a try, really measure my biomarkers as comprehensively as I can and see what I see. So hopefully we'll have an episode on TPE in the next few months. But yeah, this conference, it was good because it shifted my thinking on that a little bit.

[10:00]
Kevin: Really? What are some of the, I'm not familiar with too much of the studies. I know about the mouse study and everything you're talking about, but have they done any studies in humans where they follow biomarkers and what are some of those things they followed and what comes to mind?

Matt: So again, I'm not an expert in all of the literature here. I know Dr. Kiprov talked about some clinical studies that they have done looking at, I think they were people with mild cognitive impairment, and so they were looking at both blood-based biomarkers, I believe, some of the common stuff, but also things like NFT and tau and amyloid in blood and also functional tests, and I think the early data was, it's not the kind of thing that you're going to feel 100% confident about, but it looked promising. So what I would think about measuring in myself is a comprehensive panel of blood-based biomarkers, possibly those blood-based markers specific for neurodegenerative disorders I was just talking about. There's an ATN test from LabCorp that will measure those, that's amyloid and NFT. If I can find a good way to quantify microplastics, I would want to do that and see if there's a change. Heavy metals for sure. Hesitate to say it, maybe even a biological age test if I can, an epigenetic test, but not through one of the direct-to-consumer companies. If I do it, maybe I'll reach out to the folks at the Clock Foundation or someplace where there's not a profit motive to be selling the test where I have a little bit more confidence because, again, I do believe those epigenetic algorithms tell us something related to aging. I just have a trust issue with the consumer-facing companies right now. But it would be interesting, and I would expect, in fact, I think that's been shown with the therapeutic plasma exchange in academic studies that you do also see a change in the epigenetic signatures which is consistent with earlier epigenetic age. Now you might argue that's kind of obvious in a sense because you're diluting out aged blood cells. So again, it's going to depend a little bit on how you do the analysis, but it may also indicate a positive change in epigenetic age. When you do tissue plasma exchange, of course, are you getting a donor from somebody else? How does it work?

Kevin: So this is really just dilution, right? So they take the plasma out, take the cells out. I think you can, I don't know what the most common version is, but there are versions where you can

run it through filtration for different things. So, let's just say you want to get microplastics out, maybe you could have a filtration for microplastics out. Then you put back, I think it's BSA, so bovine serum albumin, some sort of albumin, maybe it's not bovine, you put back albumin and the cell-free plasma back into the system. So it's really just a dilution process and hopefully a cleaning-up process.

Matt: Okay. How long does it take?

Kevin: Couple hours is my understanding.

Matt: Okay. So you're, you've got an IV, usually you've got, I think, two, one in, one out, right? And then you lay in the clinic with the machine. So there's the machine that does the plasma exchange. And it's a couple hours. And again, my understanding, I'm sure this varies, cost, actual cost is in the few thousands, and then many clinics are marking that up into the 10-12,000 range for a single session. And again, it's, this is where the lack of data is frustrating because do you do one session a year? Do you do one session every 3 months? Do you do two sessions every three months? Nobody knows, right? So it's kind of the wild west a bit. But having said that, of the interventions that are out there in this space, it's one that is very biologically plausible to me. And so I have a little bit more confidence that there's probably value to this than with some of the other stuff that's out there. So I thought the talk was interesting and made me think a little bit differently.

[15:00]
Kevin: Yeah, I heard somebody was sick and wasn't able to make it or something.

Matt: Right. Mark Hyman was supposed to be the keynote speaker, and he wasn't able to attend because of a health condition of some sort, which was too bad. I know lots of people were disappointed. So I liked Mark Hyman's talk. I generally align with most of what Mark Hyman says. I think his approach is good. I think he's well-intentioned. I was disappointed. So I really liked the talk until he got to the part about sirtuins and then I was rapidly disappointed in him. So he made a lot of mistaken claims about sirtuins and particularly resveratrol and said things that were debunked 10 years ago. So again, lots of respect for Mark Hyman. I agree with 90% of what he says. I think his approach around nutrition and exercise and sleep, that's all real good stuff, and he should just stay in his lane because if you're going to pretend to be an expert, you got to do your homework, and he did not do his homework. And that I found very disappointing. It's not helpful to spread misinformation when you have a podium like he does. So I wish he had been there because I would have told him that in person in a probably a little bit more politically adept way. But really, I think this is not unique to him. I think, look, if you're going to be somebody who presents themselves as an expert in a topic, you really ought to know what you're talking about. And I'm going to assume he doesn't know what he's talking about when it comes to sirtuins and resveratrol. And there's really no reason to bring it up. So it's not okay to spread misinformation in my view, and unfortunately, he did that in his talk. But otherwise, his talk was great. So it kind of, as probably most people watching will recognize,

that's a pressure point for me that I'm going to react to. But I just don't think it's okay. That stuff's 10 years out of date and wrong.

Kevin: Yeah, there's no excuse. What else did you learn? What else did you take?

Matt: So I really liked, I had a chance to sit and talk to Vonda Wright for a while. I really liked her. I thought her presentation was absolutely fantastic. But I really enjoyed the opportunity to sit and chat with her. She's a very rigorous thinker. At least that's what I got from our conversation. So of course, that resonated with me. I really appreciated her sharing her story, and she told, I think, a really compelling story around her experience with perimenopause and hormonal dysregulation and finding her path and how important hormone replacement therapy has been for her. So I thought that was really good. And then I was a little bit disappointed the second day when Michael Greger got up and made what I thought, personally, I thought was a very dismissive and insulting comment directed at her and then showed misinformation around hormone therapy to scare people. Basically, again, I thought that was a really unfortunate example of somebody who has gained a podium, has self-proclaimed themselves as an expert, and then basically got up on the stage and insulted a really solid scientist and spread misinformation that harms people. Basically, he said, yesterday we heard this ad for hormone replacement therapy, and now I'm going to show you the truth, and he put up an old study that's been discredited and basically said hormone replacement therapy in women causes cancer and dementia and depression, and I was like, again, it's just not okay that kind of thing. I think we can have a legitimate conversation around hormone replacement therapy in women and men and look at the data, and sure, different people can have different opinions on what we think we know based on the data we have. That's legitimate to present data that has been widely discredited in a way where it's stated as if it is a fact that hormone replacement in women causes all these bad things and stated in a way to scare women, it's just not okay, even if you believe it. You at least know that there are other opinions out there, and you should be willing to accept the possibility that your interpretation might be wrong.

[20:00]
Kevin: Yeah. And that, I mean, that was probably my biggest disappointment in the conference was that I felt there was a lot of good information presented. But there wasn't a, or there was a lot of good information presented, and there was a lot of misinformation presented, and I think that was intentional. I think the organizers wanted to have a diversity of voices, and that's fine. There needs to be then an opportunity to discuss where the differences of opinion are and where misinformation that is provably misinformation has been presented, label it as such. Let people who are actual experts in the topic explain why this is not correct so that the audience, because I think what happens is when you don't have the opportunity for that conversation, the audience comes away thinking this is a controversy, or I don't know who to believe, or this field's a mess, right? There's definitely confusion talking to people.

Matt: So that was my disappointment, that we see this in our society all the time, the people who are telling the truth and the people who are lying get equal time. And the media is like, well,

it's not our job to tell you. Which is, come on. It is. It is your job. For the folks that weren't clinicians there in the business of doing science, a lot of these people were just civilians, for lack of a better word. I don't know if that's the right thing to say, but laymen. To have an hour or so to have somebody go up there and just do a summary of that, because it was a pretty short conference, right? It was just a day and a half basically. So there was a lot of really good information given, and there was a lot of women there present. So Vonda Wright, a lot of people really took a lot away from her. So I think she was putting out a lot of good information, especially for women or the general population.

Matt: Yeah, I agree. This was my first opportunity to meet Vonda, and again, I came away really impressed with her. I liked the talk on the digital twin stuff. I think that is, obviously, as we continue to get more and more powerful AI-based tools, more and more complex data sets from humans, the opportunity to model our physiology digitally presents a lot of opportunities. And so I thought that was cool.

Kevin: In real time, having all these things kind of work together and where it's going. That was just a mind-blowing conversation. I talked with him quite a bit afterwards as well. He's really working on some cool stuff. In New York there, Mount Sinai, I think.

Matt: Yeah, Mount Sinai. And then I thought the talk by Dr. Cooperman from ConsumerLab was interesting. So they test various supplements and put out reports. Really cool tool. If people aren't familiar with this and you're a supplement person, might be worth checking out consumerlab.com. But I thought what they're doing is important, useful. That's another example, though, and in his case, it wasn't misinformation. I think that's an example where there was a genuine disagreement between informed people about the data that we have. So he made some comment about how he thinks people shouldn't be taking vitamin D supplements and that even being below 30 doesn't matter. And I actually raised my hand because in that talk there was actually a time for a little bit of discussion. And said, well, I don't think, I think what I said was, because he made it sound like this is established fact, nobody, you shouldn't take vitamin D supplements, and it's okay if you're around 20 or 30. And I just raised my hand, I said, your talk was great, I really appreciate what you're doing, and I don't think there's consensus on your interpretation of vitamin D. In fact, I think if you asked most people in the space, the consensus would probably align towards trying to get your vitamin D into the range of 40 to 60, or some people even say 60 and above is optimal. And so I thought, for me, I actually handled that pretty well. When you piped up, I thought these people aren't used to having Matt Kaeberlein in the audience, man.

[25:00]
Kevin: But it was a great question. It started some discussion. I'm glad you said that. I mean, again, I think, and he tried to push back on it, but it was in a very collegial way. I don't think either one of us walked away from that interaction being like, what a jerk. But I do think, again, this is another example where it was good that opportunity arose. People, what this person, and I'm not sure he did it intentionally, but I saw this a lot, and you see this a lot in the longevity

space, especially among people who aren't experts or aren't trained in science, they present their opinion as if it's established fact, right? And I think that's what he did, probably unintentionally, and he has a strong opinion that people don't need to supplement vitamin D. And I think there, I get there's reasons why you could hold that opinion, but that's certainly not established fact. And so to present it as if it is, and there aren't 80% of the people who feel otherwise, again, misleads the audience. And of course, they're probably sitting there thinking, but my doctor told me, and again, it's Palm Beach, so maybe not as many people need to supplement vitamin D, but I'm from Seattle, so that's a sensitive topic for us. I do think that what they're doing is great because, as we both know, you and I could sell vitamin C and put dirt in a capsule and call it good, and nobody's checking it. So there, you can go to their site and really learn about, okay, this is good, this is not, this is good brand for this or that, and the details that they go through to figure that out, which we've got to have third-party intervention there to really dig into that so people aren't wasting time or money, right? And we know there's a lot of funny business going on in the supplement world, so it's good that there's a group out there doing this. So, consumerlab.com, right?

Matt: Right. And then a lot of the other speakers were great. A lot of them were representing companies. So there was a representative from Grail there, which is a multi-cancer detection test. There was, I think he's the chairman of Human Longevity Inc., talking about their cancer work. Again, I thought that was an interesting example because I thought he made some statements around prostate cancer and genetic risk of prostate cancer, and so again, I guess he said it in the talk, so it's public domain. So Craig Venter is, I think, one of the founders of Human Longevity. They say they're a longevity company. They're really a cancer detection company. Sorry, Craig, it's the truth. They look a lot at genetics, and they're really trying to find cancers early. That's what they're good at, at least. So anyways, he made a comment that Craig Venter has, I don't remember what the gene variant is, some gene variant in the testosterone receptor maybe, or no, testosterone receptor, that's what it was. He has some genetic variant in the testosterone receptor that makes him hypersensitive to testosterone. I doubt there's any data actually. Maybe there's data showing that he's hypersensitive to testosterone. But then he went on to say, and Craig took one dose of testosterone and developed prostate cancer. And immediately my alarm went off. I'm like, come on, man. You can't be a scientist. You cannot draw that causal arrow. And somebody called him on it, which I thought was good. But again, he tried to double down and be like, no, we know. And I'm like, no, you don't know.

Kevin: So anyways, that I thought was another place, I just wish people would be more rigorous in their thought. If you go, and again, maybe that's the difference between a science conference and a less science longevity LiveLong, and again, maybe I need to back off on my approach to rigorous thinking.

Matt: No, but I do think if you're, no matter who your audience is, we should be careful to appropriately express our lack of certainty on things where we can't have certainty. And I felt like for many of the speakers here, that wasn't the case. And again, my main take-home is that's okay. Let's then have an opportunity, maybe at the end of the conference, for a few hours to

come together and actually have a conversation around the places where there are differences of opinion, and then the audience really can decide. That's what I guess it is. I don't think the, I think I heard a couple people say this, well, we're just going to present different opinions and let the audience decide. And the problem is, there's no way they can decide when two people who claim to be experts or who have big followings on YouTube, which doesn't mean they're an expert, but whatever, they're celebrities, right? When they say different things, how is the audience supposed to really be able to look at that and evaluate? Flip a coin, right? So I think if there was an opportunity to really have a conversation and probe, why do you think that? What's the evidence that supports your position on this? I think then people would have a better ability to really understand. I think the vitamin D thing is a good example. I think he probably could have presented studies that were consistent with his opinion, right? And I could have presented lots of studies consistent with mine, and then people could appreciate, hey, this is not a solved question, right? We don't know who's right. And so that's okay. That's how science is sometimes. But then there are things where somebody's clearly just spreading BS, and that will become apparent if somebody who really knows the literature or the information that's out there is pressing them on that, and then the audience can make a reasonable decision about where they want to land. So I just like to see more of that in the future. But otherwise, I thought, again, the nature of the diversity of the types of talks and the speakers that they had, by and large, were really high quality. The venue was cool. I'd never been to the Palm House in Palm Beach. Kevin's like, this is definitely not Kaeberlein style.

Kevin: No, you're, but it was fun. It was cool, and I had a good time. It was all in all a great trip. So thanks to Brad Edman and the team at LiveLong Media for putting that on. Hopefully after this video, he'll invite me back. We'll see.

Matt: Alright. Anything else that came to mind from that trip?

Kevin: No, it was just, I didn't take anything different, the plasma exchange thing, I never really gave that much thought. I didn't dive in as deep afterwards, and I'm still, so I'm still not quite as familiar and gung-ho on that quite yet, but I'll be interested to see what you do.

Matt: I'm interested to see how my experience goes too. I'm looking forward to that.

Kevin: Cool.

Matt: Alright. Well, thanks. Thank you as always for watching the Optispan podcast. If you've got any questions or comments about what a big jerk I am, feel free to leave them below. And I hope to see you next time on the Optispan podcast.