We probably shouldn't box I boxed I had my boxing card and boxed pretty consistently various times. I'm not very good. You don't get a nose like this through yoga.

Andrew Huberman was just on the podcast. If you don't know who he is, I'm going to try and describe him very simply. He's this guy who works at

Stanford. I believe he's a neuroscience doctor. Huberman is his name and he's got this YouTube video series in a podcast called Huberman Labs where basically he picks one topic like sleep, stress, building muscle, depression, addiction, and he'll do like an hour to two hours of just talking into the camera and talking to his mic and explains very easy ways to understand what it means and how you can overcome or like what supplements or what exercises you can do to address. He's only been around for 10 months and he's already one of the top 10 most popular podcasts. He's everywhere on YouTube. This guy is a badass. We just had him on the podcast. I'm kind of like starstruck a little bit because I'm such a fan of his. I think you're really going to dig this. It's a little bit health focused towards the end. We get into a little bit more business stuff, but if you're into business, you have to be healthy. Otherwise, you're not going to be able to perform well. And so we talk a lot about that. We talk a lot about morning routines and these aren't just like, oh, I write my journal. It's like, well, no, if you do this based off of signs, based off peer review research, if you do this, you're going to feel this way and that's going to help with X, Y, and Z. So it's like kind of a evidence research based podcast that we've just done. It's pretty freaking cool. So enjoy it. Ben, what do you think? He just, Sean used the term shortcuts. He's really good for giving little hacks. I just feel

He just, Sean used the term shortcuts. He's really good for giving little hacks. I just feel like I took away like six to 10 little hacks I can use in my life that are going to make it better, mostly biologically, like it's going to actually improve my sleep or improve my ability to focus and things like that. So I think there's a lot of great little nuggets for people in it.

So check it out. And by the way, we're giving a thousand dollars to six people. What you have to do is you go to ratethispodcast.com slash MFM. So that's MFM as in my first million. So rate this podcast.com slash MFM and leave us a review. All you gotta do is leave us a review. I don't even care if it's a negative review. Tell us how you think about anything. One star, five star. I don't care. Do whatever you want. And at the end of the month, we're going to pick like, I think six of them and give a thousand dollars away. So ratethispodcast.com slash MFM. Write something cool, write something funny. Maybe if you stick out, we'll pick you.

Let us know what you think about the podcast. Enjoy the episode. Do you check notifications on YouTube? I do not. Okay. So let me tell you something really quick. So about two weeks ago, so I'm a big Bay Area punk rock fan. So I listened to like, I used to live in San Francisco for years. I listened to like old Rancid, old Green Day. And I was looking at an old interview with Tim Armstrong from Rancid and it has like very little views. And I was loving this interview and I was going to comment how much I love it. And I scroll down and you were the first comment on

there. And I replied to you. So I thought that was funny. We have similar interests. I did not expect to see you there out an old Tim Armstrong from. Yeah, I'm a huge Rancid and Tim Armstrong fan. I mean, without taking up too much of our time on this, I've never, I've never met Tim personally.

But growing up, I was a Operation Ivy fan, big fan of a band called Crimpshine, this whole East Bay punk scene. And then Rancid came out and actually Tim and Matt Freeman had

a band called Downfall in between. You can find some of those tracks and I love those tracks. I just love it. They cover such a huge range of styles and they've just done amazing things. And yeah, so if there's any content out there that's, you know, Rancid acoustic or or downfall, rare Rancid tracks. I scour the internet for them. If I don't know about them. send them to me because I have to devour that stuff. And we'll have Sean kind of do like an intro on you. But really quick, this is one of the reasons why I think people like you and why your podcast has taken off because you're this intellectual powerhouse, but you look like an athlete. Yeah, you kind of have this like punk rock side to you. Like you've got to tell that you have that to you. And I think that you're just like a really like eclectic, interesting person. And I think that's why. So basically, Sean, you could do the intro, but you've had this podcast that just launched like a year ago. You're already the biggest guy there is or top 10, top five. It's pretty amazing. And I think that's one of the reasons why why you're you're kicking ass is because you are quite eclectic and very different from what we're used to. All right, quick break to tell you about another podcast that we're interested in right now. HubSpot just launched a Shark Tank rewatch podcast called Another Bite. Every week, the host relived the latest and greatest pitches from Shark Tank, from squatty potty, to the mench on a bench, to ring doorbell. And they break down why these pitches were winners or losers. And each company's go to market strategy, branding, pricing, valuation, everything. Basically, all the things you want to know about how to survive the tank and scale your company on your own. If you want to give it a listen, you can find another bite on whatever podcast app you listen to like Apple or Spotify or whatever you're using right now. All right, back to the show. We can kind of like set the scene. So so we have Andrew Huberman here, Dr. Huberman, and known known for Huberman Lab. And you're a neuroscientist, professor at Stanford, as you have a whole bunch of you have an interesting podcast. And I've seen you everywhere recently. So I don't know if this is like, I don't know if you hired an amazing PR person. I don't know if I'm just late to the party, but you went from I've never heard of you before like three months ago, let's say, to I only hear about you. My YouTube feed is basically just giving me more and more of your content every day. So is that is that a new thing or or am I just like discovering you now? It's a very new thing. I mean, to just give you the guick arc, you know, leaving out all the pre academia stuff, you know, I did my training in neuroscience and in physiology, things like temperature regulation and things of that sort. And over the years, I worked on a number of different problems. Formally, meaning in laboratories as a PhD student postdoc, junior professor, tenure professor, things like stress and regeneration. And what happened was right around 2015, I started getting curious about how scientific information is making it out into the general public. But there really wasn't a cause or a venue for doing that. There were these meetings like big summit meetings and things like that that weren't really my flavor, to be honest, they're perfectly fine. But they were typically go something like, you know, yoga class, group of meditation, one talk by my product, by my book, and then people go. And so what happened was in 2019, I have a good friend, his name is Pat Dossett. He's a Wharton grad, a former Navy SEAL operator, did nine years in the SEAL teams as a good friend of mine, we swim together, he much further ahead than I, of course, you know, those guys definitely have extra gears. I've seen that. And Pat also has a company called Made For, which is a behavioral health company who started with Blake Mykosky, who's a founder of Tom's Shoes. So what

#### happened

was in 2019, Pat asked me a question, we're literally getting out of the water, we'd done an early morning cold water swim. And he said, you know, what are you going to do in 2019 to make the world a better place? And I was like, well, you know, I'm trying to figure out neural regeneration, stress and how to sleep better, my lab. And he said, yeah, what are you really going to do? He was kind of poking at me. And I said, well, you know, I think it'd be fun to just teach science on the internet and just put quality information out there, because I don't see that. So I started doing that in 2019, little short posts, pretty nerdy stuff, mostly on Instagram. And people seemed to like it. And then in 20, and I got a book deal. And in 20 end of 2019, I thought I would do what most academics do, write a book, sell a book. And then 2020 hit, and a couple of things happened. One is I realized there was a tremendous need for people to have the tools for managing stress and circadian rhythms and sleep and managing mental workload and etc. Because everyone was locked down and stressed out and confused, as was I frankly. But I had access to these tools. So I started disseminating the tools by going on podcasts and on Instagram. And then eventually the podcast led to a, you know, the Rogan appearance certainly had a lot to do with it, a rich role appearance that did well. Also in Lex Friedman at the end of 2020, great podcaster and also a great friend of mine now said you should start a podcast. So January of 2021, bought the mics, set it up. I looked to my skateboarding punk rock past, I have a friend named Mike Blaback, known as Blaback photo in the skateboard and action sports community. He shoots all the stuff of gin conna and Ken Park driving rally cars of Danny Way, Tony Hawk, all the, there are only a few superstars of skateboarding and action sports photography. Mike happens to be one of them. And he said, let's build an aesthetic that kind of represents you. I always wear the same black shirt. I own 26 of these. That's not for the podcast. You know, I always keep my hair short and just, you know, this is me on any day. It's just that the kind of camera showed up and I started sitting down and saying, well, what would I do in the classroom if someone was interested in stress and how to manage stress? Well, I would give four lectures on that. And so a big feature of the podcast that's a little different is that then most podcasts is that I try and stay on theme. And I try and keep it like I would in a classroom, but then offer a lot of tools, which is a little different. So that's really how it happened. And no, no PR firm, no, you know, big, no, no contract signed everything we've got with my team. How did you get on Rogan? How did you get on Rogan? Because that was a big, obviously inflection point. And then that leads to Tim Ferriss. That leads to more and more. So how did you get on Rogan? Yeah, and that was all this year. So then, well, two things about that. I'll just want to make sure I close the hatch on. So I haven't written this book. I haven't released it for two reasons. One is that in 2020, I didn't want to sell anything. I was coming to the table as an academic with a tenured position and a salary. Frankly, we don't make big salaries even at Stanford. Yes, if my Dean is listening, the salaries at Stanford are not in keeping with the cost of living in the Bay Area, which is why most people sit on company boards and things of that sort. So you do science for the love of it. But I didn't want to talk about my work and be self promotional. I really love learning and teaching. And I have one mission in my professional life, and that's to share the magic and the utility of biology. I mean, that's for me just fills me up. And talking about my work is fun. We can do that if you want. But there's so much terrific work out there. So what happened was the second Rogan appearance is, you know,

Joe said, you know, Huberman's doing this podcast thing and people seem interested in it. Let's get him back on to share some of this information. And but how did it happen in the first place? Well, I have a good friend and business partner at my podcast. His name is Rob Moore. And no, he's not taking new clients. So because he no longer does what I'm about to describe, which is that Rob came from the world of PR. But then he got really interested in podcasts. He's in his mid 30s. And he started a podcast called the fight with Teddy Atlas. He loves boxing. He really, oh, yeah, yeah, I listen to that every week. Yeah. Okay, you work you work with that guy. Yeah, but he's got a thick Boston accent, right? That's Ken Rideout, who's a friend who I met through Rob. Rob, you're not going to see you're not going to find he sits behind an email wall and he's a close friend of mine that, you know, October, this time last year, October, November of 2020, we went for lunch and I said, let's start a podcast. Lex thinks that we've got traction with a podcast. And I think he's right. And he said, great, let's do it. Let's buy the mics. Let's, you know, we built the studio with our own hands. Mike showed up, got the DC team in there because they're friends with of mine, DC shoes, DC skateboarding, and they helped me, you know, create an aesthetic that we thought would work for make people feel like they were in a classroom. And, you know, Rob was the one who connected me to the person who connected

me to Joe. There's a little bit of since this is a public venue, there's a little bit of a of a wall there just because they get flooded with requests. And I'll be honest, you know, I don't know what their process is. I think that they have a process. And if I'm not privy to it, I think that what's beautiful about the Rogan podcast, having been a guest on there and obviously a big fan is that they, I think what you see is the real deal. You know, Joe sits down with people that he'd like to have a meal with and or conversation with and has a conversation. And and the human appetite for that is obviously huge. People seem to really resonate with that. And of course, Joe is a tremendous reason. So he's been tremendously helpful, Tim Ferriss, Rich Roll and Lex Friedman. And I will say that Lex has been my kind of guiding light in this whole process about bringing certain elements of my own person and personality to things. You know, yeah, I am. I mean, this is going to sound weird to anyone who's looking to this for science information.

But and it might not even make sense. But Sam, you'll get it. And I don't know other people will too, which is like, yeah, I'm a died in the wall punk rocker. I grew up in that. And if that scene, I think people think of as like loud music, loud clothes, loud everything, that scene that it's at its essence, the reason I gravitated towards it early is that it's very varied. It's about showing up like heartfelt, strong. It's not a it's never a victim stance, but it's not an aggressive stance, but it's not a weak stance either. And for me, it just resonated. And so it's like, let's, you know, the opening track of my podcast, for instance, is a song I don't want to get the copyright people on me. So that's familiar from the punk rock culture. And I just wanted to bring all that forward. And I think Lex was the one who really said, pick two or three things that you really feel represent your relationship to science, and that give you energy for that. Lex is a genius. I have to say what you see there with the jacket and tie and all the interviews, Lex works so hard. He thinks so hard about where he's going with all this. And he just interviewed the director of the National Institutes of Health, Francis Collins. That is not an easy grab. So in any case, that's a long winded. I don't tend to be succinct. So I'll stop. Yeah, I want to ask you about,

I'll ask you about Lex in a second. But for those who are listening and don't know who you are, basically, I have your channel up right now. So your first video was launched 10 months ago. Your video is basically you and you're, this is weird to say to you, but you're, you're like a good looking dude. You've got like a goatee. You look kind of like a football player. You're wearing, you're wearing a black shirt with a black background. You're pretty serious. And you're just sitting for like 60 minutes to almost two hours sometimes and you're explaining things that sound complicated, like how your nervous system works and changes, master your sleep, using failures, movements and balance to learn faster. So these are like things that are somewhat complicated, but you sit down and you look at the camera for one to two hours and you tell you, you explain what, what it all means. And then you do something that's interesting where it says like, all right, so how do you take advantage of this and apply this and use this? And you're long winded on purpose because you said, you're like, I'm not going to, I need you to know exactly how this works. So you can decide what you want to do versus me just telling you exactly what to do. Yeah, there's like a balance of, you can simplify something so people can understand it without remove their own agency to, to, to dive in. Yeah. Yeah. Thanks for that description. You know, my, like I said, the goal and really my purpose in life, I know mission statements and purpose sound kind of, they're kind of cliche, but it is really as I get, so I have this process that I've used for a long time, which is I like to just pay attention to what puts energy into my body. The music, like I'll hear a song, you're familiar with this, you hear a song, you're like, yes, you know, it just fills you with energy, whether or not that's dopamine or adrenaline or whatever, we could dissect that, but that's not the point. But that energy is a, is a neural energy. It doesn't have to do with calories. It doesn't, but that energy is your source, right? Like in the Eastern philosophies, they would call it chi or whatever it is. So I've always sensed what I really enjoy. And for me, learning cool information and sharing it is what I want to do. So what I try and do is paint a tapestry at the beginning of, here's a topic like stress or sleep or dopamine or ADHD or eating disorders or whatever and arm people with the language and make them realize that the nomenclature is just words. We can replace some of those words and let's get a functional definition of things going. And then once they understand how things work a little bit, some of the, the algorithms, so to speak, then let's talk about what you can do with this and how you can use light to change your circadian rhythms or particular patterns of breathing that are grounded in physiology to de-stress rapidly, et cetera. And so, yeah.

And can you explain this first video? So your first video is only, Sean was saying that like you're, you came everywhere, you're everywhere very quickly. Your first one was only 10 months ago. That first video has 652,000 views. It's a slick looking thumbnail. Can you walk me through how much did you spend to build that studio and like, how did the first traction do you think come to this video? Your very first video 650,000. The very next one looks like a month later, a million views. The next one, 630. I mean, you hit right away. You were, you were, you were hitting right away. How did that happen? Yeah, that's a good question. So a big part of that, what, I don't think it was the thumbnails because actually we were told by YouTube that our thumbnails weren't legible. I had these fancy anatomical drawings, you know, that now we've changed them a bit. We've learned some things, you know, faces do better than images, etc. But if you, thumbnails that are really clickbaity are thumbnails where someone's going like, where they said the wider the eyes, the more people click and kind of crazy stuff. We didn't do

that because I want people to know that I'm here with a serious, you know, serious information, because I'm serious about them. It's sort of like, why always the black shirt, these are actually the black, literally on 26 of these that I like these particular shirts. I'm not trying to get picked up by the, by the makers. So I won't mention it, but I've always worn them. I like, like them. But it's also, there is me and Sean always wear black typically, because it's easy to hide if you're fat or wrinkles, right? Or tattoos, not that I'm confessing that I have any tattoos. But the, if I was neck to knuckles tattoos, I would just do it, but I'm not. But the, and kids, yes, you should be able to dress however you want and do whatever you want. But that's not the way the world works. People are always evaluating. So you decide it's your gamble. I always say authenticity is not the same as oversharing. These days, I think there's a big tendency to think, Oh, because you can deadlift 500 pounds that you should put that on the internet.

So this is part of my answer, which is that by the end of 2020, the Instagram channel had grown to several hundred thousand, but that mind you took two years and 50, five zero podcast appearances

as a guest. So we announced that we were going to launch a YouTube channel to get over there and subscribe. And then we just started pushing out content. Frequency is a big deal. You know, we do one a week, we may advance to one in a shorter one each week next time. But, you know, consistency, you know, not surprisingly counts. And there's consistency of aesthetic too. You know, the building the studio is fairly straightforward. Thank you, Mike, play back my good friend and DC. I mean, the one thing about skateboarders that they really, really know how to do well is to create original content in a DIY format. Okay, so actually, Mike is out on a shoot right now with spike Jones, right? So I grew up with, I don't know spike, but I grew up with a lot of the guys who ride for girl, Mike, spike Jones owns girls, a portion of girl skateboards. So I grew up around people that took video of us playing around in the streets on skateboards and made videos that became these iconic things. And so well, skateboarders were kind of like the first YouTubers, you know, if you look at old Transworld or 411 videos or old DC or like the like, like what bam was doing with jackass, you know, it was the CKY videos. We were the skaters were the first YouTubers. That's right. No, they really were. And you mentioned 411. So you definitely, you know, 411 is like, you know, I still skate. I was just hanging out with Mikey, Mikey Taylor this weekend professional skateboarder skateboarder. Yeah, yeah. Yeah. And to be clear, because I want to maintain my integrity with that community. I wasn't a great skateboarder. I was okay. Thunder trucks put me on out of sympathy. Spitfire put me on out of sympathy. But I wasn't going to be one of the big guys. It was just a community I really felt a part of. And when I went off to college, because my high school girlfriend went to college, I've tripped and fell into biology. I thought I'd be a skateboarder or a firefighter or something that was more physical, but I fell in love with biology and just that's what I've been doing ever since. But I think the aesthetic, keeping a fairly narrow messaging to, you know, we've turned down every option to make a little bit of extra money doing affiliate codes. I mean, we do have advertising and affiliate codes, but to just pepper things with, you know, advertising everywhere. We just, I want people to have a zero cost trusted source for science, health, and fitness information. Of course, we're not going to get everything exactly right, but to know that if they come to the Huberman Lab channel, that they're going to get information

that's vetted, that I always consult with at least two or three colleagues, professional in a given area before I do a podcast of just me, because I don't work on ADHD. I know the fair amount about it, but I consult with experts and so I have a kind of advisory board. So I use the scientific community and it's a kind of a beautiful ecosystem where our advertisers are happy, we're happy, but the main thing is the consumers get it at zero cost to consumer. And I think that's very different than a book. And that's very different than a behind paywall strategy. I've seen a lot of health and science podcasters who are quite good move their stuff behind a paywall because you can make much more money charging, you know, \$10, \$30 a month or something. And I like to think that people would be willing to do that for our content. However, I feel best about the fact that for some kids sitting in halfway across the world who wants to understand weight training or ADHD or dopamine or sleep, as long as they have an internet connection, they have to tolerate a few ads, but the information is free to them. Why don't you just bail as a perfect \$20 to you? Well, I'm, I'm, I guess, academically masochistic because, um, well, it's, it's a dream. I'm happy to announce this now. I actually took, um, I, I love doing research. We have a big project on human stress. We've been working on human fear. I love doing research and actually a fairly sizable portion of the Huberman lab podcast income is going to be donated to research and to scholarships for students. Um, I'm not, I'd be very honest. I'm not, I, I'm not extremely wealthy, nor do I, um, suffer, you know, and I, I, it's, money is important. I always say money, but can't buy happiness, but it absolutely can buffer stress. No question about that. Um, anyone who's ever had significant funds throughout their lifetime don't, won't truly understand that statement. People who haven't will understand exactly what I mean. And I, I think money is very important, but so is the ecosystem between academia, public health and science communication and the private sector. And for the time being, it just makes sense for me to continue to teach at Stanford. I teach medical students in the winter on neuroanatomy. I direct the neuroanatomy course and I really enjoy academic conversations. Um, they're slow. They, it's like lading through steel one thin layer at a time, but what you get too often is a kind of granularity where it's a process. It's, it's not so sure you get to answers. It's, it's, you get to a process of getting to answers. Um, and I don't think I'd be happy without doing that. And I talked to a couple of people before you came on that I knew, uh, they're fans of the pod and they are, I knew they would be excited to have you on because we, we mostly, this is a business oriented podcast is why kind of we're asking you some things about the business of how you, you became a content creator, how you got your audience. You know, why do you choose to, Sean, we've not even, we've not even told them what we do. I guess I, I didn't, well, I did, I did a little bit of research. Um, and I, I was delighted when you guys asked. I mean, I'm new to Twitter. Uh, frankly, I didn't like Twitter when I first got on it. I was like, wow, people are really combative compared to Instagram. Um, and I think it's because you don't have to show your face. And I'm a very like, I'm not an aggressive person, but if somebody kind of wants to go toe to toe, I still have that in me. I'm not suggesting anyone get violent out there, but people would come at me and on Instagram and sort of show yourself, let's go, you know, like, let's have a conversation. And, um, you know, so I don't get into back and forth and comments. I found Twitter to be an incredibly combative neighborhood. And then you guys showed up. I was like, Oh wow, I guess there's some nice people in the neighborhood. So it's sort of like finding the other punk rockers and skateboarders is like you and me,

we got the same thing and we're good. So that's what was the feeling I had. And then it turns out that's actually the case. Twitter, you get rewarded. Every network rewards you for a different behavior. And on Twitter, you get rewarded for, for wit, which is like the plus side. So, you know, being witty and 140 characters. But then on the other side, it's basically, uh, you know, if you have the sharpest insult at somebody, you also get rewarded and you don't have to show your face and there's all these other benefits. And so, so it brings out a different side. It's actually YouTube used to be this way to the YouTube comments. I don't know if people remember this, but YouTube comments used to be the running joke as like, what is the most cesspool

of the toxic commentary that exists? It was called the YouTube comments. And now YouTube comments

are extremely, I don't know what they changed in the algorithm or the flagging or whatnot, but YouTube comments are on the whole, you know, either funny or supportive or whatnot. They really

change that. TikTok is doing a good job of that too. Um, one thing about comments, uh, before I forget, sorry to interrupt, but vis-a-vis business, because I know that's your, your main audience is one thing that I did on Instagram early on and that I do on YouTube is comment sections are great, but better to make them interactive. So I actively request and we read every single comment. I say, tell me, but give me, give us feedback, but also give us suggestions

and give us ideas about future podcasts. And then I've devoted entire episodes. We haven't done one in a while, but to what we call office hours, which is where I go through the most frequently asked questions and address those. So now there's an incentive to ask, uh, to put stuff in the comments. And I think that's a really good non combative use of the comment section. And we, of course, still get some, uh, crazy stuff in the comments and people being combative, but, um, they should just know that we don't actually read those. No, I'm kidding. We read them all. Yeah, for sure. Um, so I wanted to talk about a couple of things. One was what we talked about now. How did you, where did, how did you break out? What, how did you get your, your start? And I think it's great. You know, I teach science on the internet is such a simple, a simple, like sort of philosophy, a simple, you know, business statement of what do I do? What am I here to do? And then the mission, I enjoyed that as well. But I want to actually go through some of those greatest hits. So some of the reasons that you've grown in popularity is that you put out nuggets that are interesting to people. And when I was talking to friends saving you were coming on, they said, you know, we ask a lot of the kind of like, oh, you know, we have a billionaire on the podcast. Hey, you're super successful. What's your morning routine? And they tell us, oh, you know, here's what I do in the morning, you know, and people sort of equate that to, if I do this, I will, I too will become a billionaire, which is obviously not, not the right way to think about it. But I think if I ask you about your morning routine, which I guessing is centered around health, mental health, fitness, um, and sort of regulating your body, that that actually will be applicable to more people. So take us through what is the, uh, what is the morning routine? I know you've talked about this on the, some other pods, but I bet the majority of our audience has not listened to all your stuff. So, you know, these are the greatest hits. Let's, let's do them. Sure. Yes. So, uh, I wake up, uh, for me, that's usually somewhere around

somewhere between 530 and 630, depending on how early I went to sleep. Uh, I wake up and I do an assessment of whether or not I feel rested or not. Most days, the answer is no, uh, just because of, uh, life, um, staying up too late, uh, stressed, et cetera. So I do a 10 to 30 minute Yoganidra session, first thing in the morning. Uh, Yoganidra is a passive listening. You can find these Yoganidra links, uh, on YouTube. There's one which is 10 minute Yoganidra. Um, there's one that actually made for, put out for free called, um, NSDR non-sleep deep rest. That's a 30 minute one. It's a script where you just listen. It brings your brain into a state that's like, that's pseudo-sleep. After that 10 or 30 minute Yoganidra, I feel like I've slept as much as I need to sleep. It's a really remarkable reset and it, it avoids your brain going into this state of planning and organization, what we call duration path and outcome in the neural circuitry, uh, world and keeps it in that kind of liminal state of adjusting. And there are some interesting data published showing that these Yoganidra meditations, if you will, are, uh, can up-regulate some of the neurotransmitters in the brain, including dopamine that make you prepared for action. And so, uh, they're very restorative, especially in the absence of complete sleep. If I feel great, I might just get out of bed. The first thing is always, and I have to be careful because it lists every step because sometimes people say, wait, he doesn't even go to the bathroom in the morning. I mean, obviously I go right foot, left foot to the bathroom, then I use the restroom. Then I go downstairs, I drink water, I hydrate, and I go outside and I get some sunlight in my eyes for 10 to 30 minutes. Foundational, absolutely critical practice. When I don't do it for more than two days in a row, I start messing up all sorts of aspects of my life. And most people are not doing this, even on cloudy days, do it. Don't wear sunglasses, unless you have a medical reason why you need to. It's fine to wear corrective lenses or contacts. You don't need to stare directly at the sun or see the sunrise. And these are the guestions I most often get. This is why I'm hitting these as bullet points. And if you wake up before the sun rises, flip on as many lights as you can in your space if you want to be awake in your artificial light environment. And then once the sun is out, go outside. I don't care if you're in the depths of Scandinavian winter, the sun comes out at some point. Some people might need a daylight simulator,

but the discussion about daylight simulators is usually an excuse to avoid having to just go outside and get sunlight in your eyes for 10 to 30 minutes. You can check your phone if you want, or bring the newspaper if people still read those or a book. I usually bring a journal and I write down some things that I want to do that day and try and make sure that I'm clearing away some of the clutter. If you have a dog, you could do this while walking, etc. And then I sometimes will combine this with a walk. Optic flow, when you're just walking through space, not looking at anything like your phone or anything in particular, that optic flow is known to suppress a circuit in the limbic system that involves the threat detection centers. It is very calming to walk through space and it reduces your overall levels of anxiety. Many people just being indoors, not getting sunlight, not getting enough sleep, life is stressful, they're not doing this. So basically, all of that can be accomplished in one hour. It's wake up, yoga ninja for 10 to 30 minutes, use the bathroom, drink some water, of course, all the basic biological functions. What about theanine and coffee? Okay, so I don't ingest theanine during the day. I ingest it as part of a sleep cocktail before sleep. Some people will take L-theanine with coffee. It's now in many energy drinks because it takes away some of the jitters that it's a mild sedative and it

takes away some of the jitters that caffeine can induce. I don't drink any caffeine until 90 minutes or ideally 120 minutes after I've woken up. For the following reason, during sleep, you well, during wakefulness, you and the longer you're awake, adenosine builds up in your system. Caffeine is an adenosine antagonist functionally. I realize it's a competitive agonist for you aficionados, but it basically blocks the adenosine receptor's functionality, so to speak. But when that caffeine wears off, you're going to get a big crash because there's going to be a surplus of adenosine. By waiting 90 minutes to two hours to ingest caffeine, 90 minutes to two hours after waking to ingest caffeine, it's a little bit of a struggle to learn how to do this. But your natural adenosine system, the adenosine tapers down very, very low as a consequence and you don't get that rebound in the afternoon. I drink mate, a verba mate tea. I love it. There's a great... I don't like the really smoky ones. I have no business relationship to any yerba mate company, by the way, but the one I love is... I don't know who this person is or if it's even a person. It's Anna Park. It's a really delicious one. It comes loose leaf and it's very high caffeine content, so you don't need very much of it. And it also has a lot of what's called GLP1, glucocon-like peptide one, which is actually being used now as an anti-diabetes and obesity drug. There's all sorts of great things about GLP1, up-regulate dopamine receptors, etc. So I'll drink mate, starting about 90 minutes

after I'm awake. And then that's kind of my morning. But after the walk, I go inside. I do try to avoid social media at that point. Maybe a quick check of 10 minutes. I'll even set an alarm. On a phone or computer? Typically on a phone. I'd like to move more to the computer, but I'm in transit a lot these days. And you have to be thoughtful, obviously. But I think maybe 10 minutes on social media. But I want social media to continue to be a pleasure because of the dopamine

system. And we can talk about that. I don't want to go down the rabbit hole of someone else's psychology or neurology. I want to stay in my own frame. The orientation I have in the early part of the day with that notebook is, I want to be in my own mental frame. I've just slept during sleep is when we have neuroplasticity. The actual rewiring of neural connections occurs during sleep. I'm a big believer in the subconscious. And when you wake up, you are now in a position to extract whatever it is that these new neural circuits have figured out about the previous day and day's events. And so if I immediately bombard myself with sensory experience or input or distractions, I'm not able to do that. So this morning, for instance, I'll just give an example. I'm preparing an episode of the podcast on time perception. I've been reading a lot about this. And I woke up this morning, went outside with the notebook and just sat there and then realized that there's a way to organize this episode that has to do with frame rates and sort of slow motion versus fast motion cognition. Hopefully it'll be clear by the time the podcast happens. It's not fully formed. But that came me. So I wrote that down, thought great. And then I'll move into some more typical type work. It's great if you can avoid email until after 12 noon, but that's very hard for a lot of businesses. So I will usually do a brief check in on email, critical items. But then I like to write. So I will, I'm working, I am working on a book finally. I will work on scientific papers, on grants, on reviewing papers. I try and make that pretty heavy intellectual lifting. And take that till about noon. And then I'll look into, and then we can talk about, you know, food and other things at this point. I haven't eaten anything. So you have not eaten till noon, but one thing that you meant did not bring up. And I'm wondering, do you have a

family? No, I have a relationship and I had a dog until recently he passed away. So I do understand people have different things. Yeah, I have different constraints. He was a big part of my morning routine. I had this big 90 pound bulldog mastiff named Costello and we would slowly do our walk. We'd get the sun together. Animals are perfectly happy to do these because these are very innate behaviors. But no kids. No children. You know who you are. There are children in my life. I'll say that, but I don't have any children. Yeah. You remind me of Henry Rollins. Yeah, except his, except his jaw goes to about here, right? You know, like Henry's head is like this big, right? Sean, do you know who Henry Rollins is? No. One time I shot. Okay. Sean doesn't know who Dolly Parton is. He didn't know who Jimmy Buffett was. Sean doesn't know like white

people. Shit. So we're going to put this the category of white people. Shit. Henry Rollins. What was he? Was it black flag that he was the lead singer of? Yeah. So well, all right. I have to be careful not to go down this path too. I mean, I'm a big Ian McKay fan. So minor threat, right? Then minor threat. And then there was black flag. So and yes, but Rollins was part of black flag. And he was early in the punk rock scene to get into lifting weights. Ian and those guys were straight edge. Straight edge means different things in different eras. But at that time, it meant no alcohol, no drugs. It's pre-firm stance in the 80s compared to the rest of the culture. Yeah. I don't know Henry. I don't know Ian. But I listened to minor threat all the time. But Sean, so Henry is like this guy. He's like this punk rocker. He's like, he might be in his sixties now, but he basically like was singing punk rock, but he would didn't drink or anything. And he started lifting weights. So he was like kind of like a meathead a little bit and not a bad way, but he was like jacked. And now at this point in his life, he's completely single. He doesn't have kids or anything. And he's a poet and he's an actor. And he's just kind of like a Renaissance man where, and if you Google them, you'll recognize them. Did you, did you Google them? He's, he's like, you'll definitely recognize them. He was in, he was, he's sometimes in movies, sons, sons of anarchy, things like that. And anyway, just this like really, really interesting guy and he'll go into like a Ted talk or something like that. And he'll just talk about his philosophy on anything. He's kind of like Mike Tyson a little bit. He just kind of like every time he talks, it's just like wisdom. Anyway, uh, Huberman has this like, uh, this like Henry Rollins vibe a little bit. And that's why I was asking about kids because you're this interesting guy who's kind of like I, in my head, I picture you as this like guy who's alone, intensely studying and trying to figure out like crack a problem. And I, and I think that that's really in, that's just like an interesting part of you, at least in my head, that's what I'm making you up as.

Sure. I mean, I, I, in the spirit of authenticity, but not oversharing, uh, what I can say about this is, um, I mean, I'm blessed with great friendships. I've always, I think because of that skateboarding punk rock era, because it was mostly guys back then, I have a community, a lot of friends who, you know, swim, who work out, who play music. I'm really good friends with a guy named Michael Muller, who's a photographer, who does all the Marvel stuff. And, um, I'll train with him. I train, I'm sometimes up at, uh, Laird Hamilton and Gabby Reese's pool. I like those workouts. They're good friends of mine when I'm down there. But yes, I, at this point in my life, I live in a somewhat remote area. Uh, I have a gym and a sauna and a cold dunk. I spend a lot of time with the books. I, I'm dying to get another dog. And I do live that kind of monastic lifestyle.

Um, you know, I do have a relationship, uh, and that's great. And, uh, you know, the children thing is interesting because I started off studying brain development and neuroplasticity and brain development. And so let's just say that if I do something, I do it a hundred percent. So I have no children now, but if I do have kids, I, I genuinely want five of them. I want a big family or none at all. So that's a, that's the plan. All right. A quick message from our sponsor. You know, I was thinking about the shortest day of the year earlier. And while we technically have the same amount of time as every other day of the year, the lack of daylight makes it feel so much shorter, which is exactly the same kind of feeling as working with disconnected tools. Our work days, the same length as always. But before you know it,

we spent three hours just fixing something that was supposed to be automated. Thankfully hub spots,

all in one CRM platform can serve as a single source of truth for managing your customer relationships across marketing, sales, service operations with multiple hubs and over a thousand integrations and easy to use interface. HubSpot lets you spend less time managing your software and more time connecting with your customers. Learn how HubSpot can help you grow your business

at HubSpot.com. We should talk because you're, you're kind of, your specialty is around the eye, right? And I've heard you say this before that, uh, and I'm going to paraphrase it. So apologies if I get it wrong, but I is essentially part of the brain that exists outside of the, the sort of the cranium where the rest of the brain is stored. It's actually like, and that's right. It is the same, is it what the same tissue or it's like developmentally that it like kind of segregated at some point, but it's basically it's the only part of your brain that's like facing the world out exposed to the world. That's right. Uh, you got, you got several points there, right? And none of them wrong. These two bits are two pieces of your central mirror system. They got extruded out of the skull, or we should say out of the cranial vault, because technically they're still in the skull, extruded out of the cranial vault during development. And they are the way that your brain figures out where it is in space and time, right? Um, by the rising setting of the sun and the changing of the, of the amount of light throughout the year, regardless of where you live. And they are responsible for delivering 40% of the, let's just say 40% of the brain's real estate is devoted to vision in some way or another. We are incredibly visual animals, especially even in blind people, that real estate for vision that's in the back of the head, the so-called occipital cortex is overtaken by areas that respond to touch and hearing. That's why they're so good at tactile and hearing. But incited individuals, vision is the predominant way, not just that we represent and see objects around us, so blue car, tall, goodlooking

woman or man, whatever it is, it's also the way that we orient ourselves in space and time, and that we set our frame rate. And we can talk about this, but essentially, as you move through life, you're either batching time in big chunks or in small chunks, and that has to do with how you're viewing the visual world. So you're either thinking in slow motion or thinking it fast, depending on your visual environment. That's probably a little abstract, but yes, these two bits are brain outside your cranial vault. And that's part of why you say kind of in the morning you want to go, one of the key things of your morning routine was get outside, let the sun

hit your eyes, because it's basically alerting the body that, hey, the sun is up, kickstart all your, start your engines, because it's daytime, it's regulating that way. And I think there's different things throughout the day that you've talked about that you can do to maybe reduce anxiety, maybe help you go to sleep. And I'll give you kind of two questions that came from the audience that when I tweeted out that you were coming on, they're both in the same vein. And so one question is, we talk a lot on this podcast about the 80-20, right? We are fans of the shortcut. Shortcuts get a bad rap around the world. It's sort of seen as the lazy, I don't care thing to do. But in many ways, a shortcut is great. A shortcut is basically saying, how do I identify the highest leverage points that if I did those, I would get maybe the biggest impact? Or how do I get the result I want faster instead of slower? And so what would be the 80-20? Meaning if you could change for all the people who are listening to this, right? So imagine 100,000 people listening to this right now, if you could implant sort of one or two behavior changes that they could do in the day. So maximum of two, which two would you pick that you think have the highest ROI, the highest return

for the investment of what it takes to do them? What do you think would make people happy or happy or healthy? For what? For what year? It doesn't matter, anything that's anything to make you feel better, whether it's improve your health or improve the way you feel throughout the day. What would be the one or two that you would point to as like your kind of? Yeah, so, you know, it's a great question. I think we need to think about foundational practices. And the two things that set the foundation for optimal mental and physical functioning are going to be really good sleep and really good mental frame. And mental frame is going to be the ability to toggle between different states of mind. And so let me give you the practices first so that I don't get accused of being an intellectual to the point of, you know, curing insomnia right during this podcast. The first one is that morning sunlight in your eyes should be a non-negotiable thing 360 days out of the year. If it's raining, stand under an overhang. I'm very unsympathetic to the, well, I wake up and it's early and then I gotta drive to work.

Stand outside for five minutes. I don't, you know, I got plenty of rest last night. So I'm not ornery about this, but I've grown a little bit exhausted of the, well, you know, I can't do that because I've got kids where take them outside with you. They need this too. That sets a cortisol increase in the morning, which is a healthy cortisol increase that provides wakefulness, triggers your metabolism in the proper direction. If that cortisol spike happens too late because you didn't view light, then you step out during noon too often, remember one day is no big deal, but step out in the sunlight too late, too often late in the day. You have a delayed cortisol spike, which is associated with insomnia, depression. There are good data on this. So get that morning sunlight 360 days out of the year. You will thank me. I promise. Everything gets better. Now it's a slow, subtle shift. It's not like popping, you know, 1000 milligrams of L-tyrosine and drinking a double espresso and going to the gym. It's not a, it's not, it's a foundational practice. So I like to think of it as it raises the tide so that your boat can leave harbor. That's how I think of it rather than, oh, this is like putting another outboard motor on my vessel. Okay. So that's the first one. And the second one is a little bit of a broader category, but it's get sleep right. You have, if you're, until you're sleeping well 80% of the time or more, get your sleep right. And for this, I can just defer people. We do have a newsletter.

It's completely free, but we have our privacy policy. We don't share your email. It's at hubermanlab.com. Just go to newsletter. All the prior newsletters are listed. There's the key tips for sleep. You can watch the master your sleep episode, or you can just download that 12 steps for optimal sleep. Yes, there is a segment on supplementation with some of the considerations and warnings. There's also sections on non-sleep deep rest protocols, links to those. So get your sleep right and get that light early in your eyes early in the day. If you're a blind person, there's another protocol. I've done some work with blind people to try and help them with this. Many blind people still maintain that cells in their eyes that can reset the, can set these mechanisms. What's the, what's the mental framework thing? That's the most interesting. It's the time of the year for one thing. My friends change going from Q4 to Q1. There's going to be a lot of change, a lot of shifting, a lot of work, and a CRM platform is critical to keeping your business connected throughout that change. And HubSpot is consistently working to make sure its platform is more connected than ever with new features. For example, custom behavioral events gets into the details of what makes your customers ticks. They track site behavior and understand your customers buying habits all within the HubSpot platform. If you're looking to find more ways to keep your data clean and have a centralized system, the all new operations hub enterprise gives your ops leads the ability to curate datasets for all users, meaning even faster and more consistent reporting. So learn more about how you can use HubSpot CRM platform and how it

can connect your business by going to HubSpot.com. That's HubSpot.com. Yeah. So mental frame is something that I don't think has been formalized in the kind of health and fitness optimization. Sean's really good at that, by the way. Sean is very good at that, where he does a really good job at deciding what frame he's going to be in. I'll put it differently. The number one priority, my number one mission, the thing I work on is not even my business, it's not this podcast, it is being able to be in the state of mind I want. So which is basically being able to experience the experiences I want, the way I want to have them. Right. And so I just made it my top priority in life. So then I started to get good at it because I realized, oh, shit, this is the cheat code. This is like, you know, you've got stressed out billionaire over there. And then you've got, you know, joyful single mom over here. And like, what's which quality of life do I actually want? Well, I want the one where my state of mind is in these states that I enjoy and not fear, anxiety, stress, depression, not these other states that I'm trying to not have as part of my daily, you know, my daily diet. So that's my quick, quick rant on it.

Yeah, no, it's great. Mental frame is so key. And most, I will say, and I want to be very respectful of everything, all the work that's preceded when I showed up. But you know, a lot of the stuff that's out there in the self help and business literature, it frankly is kind of nipping at the margins of some of this stuff. Like, and look, I don't want to throw out names because it becomes disparaging. I think the one person who really deserves a nod, who's truly a pint, there are two people who are incredible pioneers in this space. And one is Cal Newport, right? So good, they can't ignore you is an incredible book. Everyone should be required to read that book. Deep work is essentially paraphrasing some of the protocols from deep work. But Cal, who I don't know, have never met but have great respect for. So computer science professor back east. It's about setting mental frame and context switching is dangerous. Which book? Which book are you saying? So yeah, so he has a book so good, they can't ignore you, which was written some

years ago. And that was more towards like not trying to find your passion, but getting really good at skills. But deep work is an excellent book. He has he's not on social media, but he has given some TED talks. And that book is about getting in the right frame. It's sort of like, it's a lot about flow, right? It's about not succumbing to distraction so you can do work that actually moves the needle. But that's not what you're talking about, is it? I thought that you were talking. No, so yeah, then there's another one, which is a world without email that he were recently that here's the key essence of the Cal Newport work. Okay, the key essence of it as it relates to mental frame is that the brain is extremely good at end the body at context switching. Like I could be doing this podcast right now and her fire alarm goes off or someone comes knocking on the door, I can switch up my context and respond to that. But 90% of the work that we are that moves the needle, meaning that we are rewarded for or that enriches professional life and relationships. We used to talk about this about mindfulness and presence, but it's really about getting the brain to start doing certain operations more in a more facile way. And this is why habits are important. But because going to the gym is different than reviewing a paper or writing a scientific paper is different than podcasting or being a guest on a podcast for that matter. So what happens is early in the day, when you get the download from sleep, you identify a few things that are key, you've already you're starting to funnel your neural networks toward what I'm calling frame setting. And what you're not doing is allowing something that came in from the external environment to adjust your frame. So you get a depth of connection with the work a depth like I knew I was doing this podcast today at noon. And I wasn't walking and thinking about it. But I set that as a as a goalpost. And because I wrote it down, my brain is orienting toward what I need to do so that when we clip on, we're ready to go. And so mental frames are very important. Context switching is deadly. I'm stealing Cal's word. So forgive me, Cal. Some people will put freedom, the computer program, so that they are not able to engage with the internet. This device, which I've turned off, or I guess it is on, but it's on airplane mode for the podcast, I try and keep away from me for the first half of the day, very hard, very hard, especially when you need to post on social media. But I try and I want to have here's the goal in the morning to make this simple. I want to have one 90 minute block that I completely conquer that I that is where I experience immense resistance to do something other than what I'm doing, but that I stay in in noodling away or gnawing away would be the better word at writing something or reading something or trying to comprehend something. And you have to be very careful. The moment you walk to the restroom, and then maybe like wash your hands and look yourself in the mirror. And then you're like, Oh, you know, I got this weird hair growing out of my cheek or something. You're starting to switch mental frame. And so 90 minutes seems like nothing, but it is remarkable what you can accomplish with this. But the more important aspect is that in that exercise of getting good at what we call no go operations in the brain, you have go and no go operations in pushing aside things and enforcing those blinders, you're able to bring that same mental frame to other things later in the day and in life. And you're able to engage it much quicker, sort of like if you're a car, you drive a car and you've never been up to 110 miles an hour, you don't really know how to get around a semi in front of you that's breaking fast and you're on a downhill. But when you have to do it, you can do it. You're comfortable at speed. And you're comfortable breaking. And so that this mental frame thing is not just about the work you are able to do in that 90 minutes. It's about

getting better at doing deep work, even for shorter bouts, because if the day goes on, we all have this experience, right? Things start coming in, we start getting bombarded, and we're starting to get that that kind of fragmentation of our, of our goals. And we're kind of getting pulled off. And some people that the peak time is in the afternoon, some people to the morning, some people play at night, but you're getting yanked off center. And so you have to be able to recognize just how delicious and effective that state is. And then you can apply it later. And I'll let people use their imagination. But this comes into into use in many aspects of life that have nothing to do with work. Okay, like being able to stay at that, at that groove with somebody or in some interaction, or on a run, I mean, you know, use your imagination. This is the, the important thing is, it's all the same circuit. It's this engagement of the prefrontal cortex, which is saying duration path outcome, meaning what, how long is this going to, how long should I do this? What pass should I take? What outcomes am I getting in real time? And not getting pulled off center by someone

else's DPO, as I call them DPOs. Incidentally, or not so incidentally, I've been fortunate enough to do some work with the special operations community in the Canada and the US. In addition to those guys being really good at shoot, move and communicate, the really exceptional ones know how to flip

this switch on. We think of it as like grit, resilience and mental toughness. And yes, they're all gritty, but there are a lot of gritty people out there. The difference is the ability to take your environment, narrow that environment and be effective and cut a fine slice through something and then stop and move to something else. That's a mental operation that involves multiple circuits, multiple neurotransmitters. We couldn't say just dopamine, just epinephrine

or something like that. It's going to be that, but a bunch of other things too. And so 90 minutes, like learn that 90 minute battle and it takes time. And then you get very, very good at. So I'll podcast for two hours. I drop into that. That's the state I'm in when I podcast. Two quick questions. One, what do you suck at? Because when I talk to you, I'm incredibly intimidated

because when it comes to mental health and physical health and emotional health, I'm like, I'm so inadequate because well, I like, I read your watch your YouTube to see like, you know, I stink at this. Therefore, I want to learn what you're saying so I can be better. And then when I hang out with you now, I'm like, this guy's got it together. I know that's not the case. You're human. You've got issues. It's just like me and you. Definitely not the case. So I want to know what you struggle with. And also, do you just have loads of people drop it in your DMs hitting on you? Because I hear you talking. I'm like, this guy, he's probably, or is it all just dudes? Is it all just a bunch of dudes like sending you pictures of like a mole on their back asking what they what you think it is? How do you know I don't find moles on backs? Incredibly. I'm just kidding. Every doctor has that they just all my doctor friends. It's all just half of us say like, Hey, what do you think this lump is? Exactly. So, okay, so just to make sure I closed the hatch on that. So you asked for two tools. I gave three morning sunlight, master your sleep. You can see that newsletter for the tools. And then this 90 minute and look, some days it goes better than others. But remember, it's not just about what you accomplish. It's about

getting into those frames. And you're controlling it. This is I guess I wish I had said this before is that you are setting the beginning middle and end of that frame. That's what's key. It's not happening because someone else said game time noon on Sunday, and you're showing up, anyone can do

that with some practice. What you're learning how to do is is flip the switch. You're learning how to engage that. But you have to be very judicious in your use of this circuitry. You can't do it for 12 hours a day. So that's when I do email and all the other stuff. Okay. And I two 90 minute about maybe one last point about that. And then I'll tell you what I suck at. But there's a time in the universe to get all of it. There's a second newsletter there, which is about optimizing learning and plasticity that touches into some of the details and some free links and protocols related to that. Also at the newsletter, it's the October newsletter. Okay, so what do I suck at? Oh, goodness. Like what's your struggles? I mean, I imagine now that you're famous, your Instagram, probably in your Twitter are like blown up. So maybe you're it's hard to keep track of your email and say on top of that. I mean, I don't know I'm projecting. Yeah. So three things that have been helpful for this, but okay, I'm dreadfully poor at communicate at follow up communications. I'm really bad. I really like comments. I try and respond, especially on Instagram. I like to give people if you ask a professor a question, they're going to give you an attempt at an answer or not. It's accurate or not. They're going to try. They're going to try and get it right. So I have to control my impulse to respond to everything just for sake of time so I can do the big important things. I'm a terrible cook. I'm an absolutely terrible cook. I mean, I'm fortunate that I have someone in my life who's an exceptional cook, but I am an absolutely dreadful cook. I mean, I could, I could destroy toast. I just don't get it right. I don't have the patience. Do you eat sugar or do you eat real? No, so my diet's pretty, pretty clean. It's basically I do low carb. I'll eat some nuts and stuff in the morning. If I'm hungry, I don't make a big deal. I put salt in my water, which kills your hunger. A lot of the time a lot of people get shaky. They think they need sugar. Your electrolytes are low. Just put some sea salt or a little pinch of salt and water, drink it like, Oh, and go another two hours and your brain functions great, blood volume goes up. So well, you know, I think we're going to I think 2022 is going to be the year that salt comes back. Science magazine has done a lot about the hypertension stuff. If you have hypertension, check with your doctor. But you know, I eat a low carb throughout the day. So meat and salad, maybe I might have us a little bit of rice or something. If I train, I do exercise. I train in the morning at some point. I prefer to do it early, but I find some time where I do one hour of exercise, every, it's weight train run, like one day, weight train, one day run, one day, weight train, one day run, I take one full day off each week. I never train for longer than an hour after warming up. I hit it as hard as I can because I can't seem to come off the gas pedal. And that's my thing. I've been doing that for 35 years. So I'm 46 now. So 32 years. Sorry. But I was going to ask you one related question, which is you talked about health and kind of like you kind of mentioned you intermittent fast, basically you don't eat till noon or you train a certain way. And when it comes to health, there's like, you know, there's a high carb diet, there's low carb diet, there's meat is good, meat is evil. There's this is, you know, weight training is good, weight training is horrible. Cardio is good, cardio is bad. So there's sort of this like bombardment of different side info. And I think, you know, what you're trying to do is get to the source of it, get to the truth of

things. What is one piece of conventional wisdom that you disagree with? Or maybe it's hipster wisdom, something that's a fad or a trend right now that you say, hey, pump the brakes on that, that might be able to help some people out. So what's something that's you hear a lot, but you don't you don't buy it or you don't agree with it. You think it actually might be harmful. Sure. I hate to always backpedit a little bit, but I have this thing about thoroughness of answers. So forgive me, I've got a little bit of a OCD on this. I'm terrible cook. So I suck at cooking. And I'm not a good writer. I'm not a bad writer, but verbal exchange is how I do best. So I solve this problem. I write into, I dictate into voice, voice memos. And then I put it on what's at rev.com. They have a lot of my personal income. And then I sculpt from there. And because I'm not a very good writer. So and I'm a terrible musician. I love music. I'm, I can't play a chord to save my life. And I, that's okay. I'll live with that. So I'm terrible at a lot of things, Sam. And, and if you talk to any of my ex-girlfriends that they, you know, they'll give you their take on what I'm good at and what I'm not good at, you know, but trust me, there are plenty of things

I'm like world-class failure at. And I don't try and hide those. But I think I'm glad you asked the question because look, I don't have it all figured out. I've been greatly inspired. I just want to give a nod to Tim Ferriss, who I've known only through the podcast interaction, that podcast four hour, four hour work week, four hour body, especially, had a tremendous impact in accelerating my career in science, because I was able to focus on things that really matter, maybe not just four hours, but just the principles in those books. I think we should all be rereading those books. They're so damn good. And yeah, so okay, um, the diet thing I do low carb during the day and then I eat carbohydrates at night. I like starch, I like pasta and salad. I try and limit my protein at night because it makes me sleepy. And I get into really great sleep by eating my starches later in the day, usually around eight, eight or so I eat dinner and then I go to sleep around 1030 or so. I'll have a snack sometimes if I want one, but generally I don't want one. And that's really, really key because if I've trained early in the day and I'm running around like crazy, I'm also burning up a lot of glycogen and I want to repack my glycogen so I can train in the morning. So I tend to like to train early in the day. Okay, so what's out there? Well, first of all, the nutrition space is a disaster. It's an absolute disaster. So much so that I'm already preparing for the attack about what I'm about to say, which is a well accepted truth in science. There's a paper from Chris Garner slab at Stanford showing that as long as people ingest fewer calories than they burn, you're going to lose weight regardless of whether or not those calories are a low carb regimen or vegan regimen or pure meat regimen, etc. So calories in calories out is a foundational principle. I've been accused of saying different, but the fact of the matter is it's true. Now the calories out portion is going to be regulated by a number of things, basal metabolism, how much you exercise, are you hormone augmented? Are you what's what's the controversial thing that you've just said though? I don't even know. So so in the nutrition space, there's this other idea. The other idea, it's grounded in some rationale, which is like, for instance, when you eat animal protein, like chicken or beef or fish, there's a metabolic cost. There's a there's a calories out equation from the digestion and utilization and protein and use of that. But that seems like a rounding error. No, it's not huge, but it's very different than if you were talking about equivalent number of calories from from starch. So now there but there are hormonal effects of bias, what I call

bias diet. So I eat a macronutrient complete diet includes fats and proteins and carbohydrates. carbohydrates are sort of on an as need basis. So if I'm training a little less, I might eat a few fewer of them, etc. But the nutrition space is a mess because everyone has to eat. And people have different preferences. And so a lot of the stuff that you see out there are really just geared toward finding a match with an audience that prefers plants or prefers meat or prefers to fast, you know, having explored the fasting science and literature, there's nothing wholly about fasting that provides autophagy, the cleaning up of dead cells. I mean, low calorie diets will do that also, even if you're not so called fasting, but there are it appears some benefits to having periods of each 24 hour cycle where you're not ingesting calories, independent of the total number of calories. So the biggest issue I have that the mess that I see out there that I hope will get resolved is that people are using social media and a certain type of he said, she said, they said, we said to amplify controversies that don't really exist, right? I'm willing to bet, for instance, I'll just state my stance on this, that eating more plants and less meat, forgive me, Paul Saladino, he's a friend of mine, and you know, he's the carnivore MD, he's got great data to support what he's got. But I like plants, I'm going to eat a salad. Am I going to die? Maybe, but I'm eating my salad, but I'm also going to eat a steak. And so it's almost like crazy when we start talking about this, like, are we really talking about this? Here's what I'd like to see the carnivore MD. It's this guy on Instagram. So my name, do you know who you know, the perfect keto guys, Andrew? I know of them. Yeah. So Anthony is lives across the street from me. And then Justin has been on this podcast a bunch. Okay. And then they're Anthony and this other guy went to somewhere in Africa,

I forget to see how this tribe lives, eating mostly just meat and some honey. And that other guy, his name is Paul. He's got this Instagram handle shown called Carnivore MD. And basically, he pretty much only eats meat, organs and like butter, just animals. Yeah, he'll do honey and some some berries and stuff. Look, very smart guy. And people will compete the battles on the internet, like, does dietary cholesterol impact serum cholesterol? Is serum cholesterol impacting testosterone or not? I mean, it's, it's so crazy. But the reason it's crazy is not because it isn't a valid conversation. I mean, we all have to eat and people want to live a long time and feel vital. It's crazy because there's really no field. It's not like vision science or stress science or sleep science or, you know, cognitive psychology, there's no field. It's bringing together people with very diverse frameworks trying to resolve the same problem. And so it's sort of like if I were to be in a discussion or agreement with someone who's a philosopher, I don't do philosophy, I don't know the principles of philosophy. So I think that the issue on the internet right now is a big one. Who are the experts? I mean, we've seen this with everything related to COVID, right? Who are the real experts? Are they the people with government jobs? Are they the people who, who are, you know, MDs? Is it PhDs? I think what I would like to see more of what I know I'd like to see more of are more panel discussions. This is one thing that isn't happening on podcast as much as it could panel discussions where people can get to the heart of the matter by combining physicians, scientists and practitioners. I do understand the frustration and the angst of people who've devoted a career to being in the trenches of doing stuff. And then someone who has an MD

writes a book and comes along and says, hey, I've solved weight loss or I've solved it by way of eliminating one macronutrient, which by the way is not what Paul Saladino is saying. I just want

to be clear that I, that's, I'm not pointing anything at him directly when I say that. So I think that it's a kind of a free for all right now. Nutrition is the worst. But in terms of the battles, but there are some shining bright lights in that space. For instance, Dr. Andy Galpin is an exercise physiologist who's done work with a lot of athletes. He's the professor, Cal State Fullerton, in terms of training regimens. He's just for endurance and for strength, for female athletes and for male athletes, for the everyday person. He's got, his content is just so damn solid and grounded in mechanism all the way from muscle sarcomeres to this is how long you should rest between sets if this is your goal. And then in the nutrition space, I've found what works for me, which is this low carb starting around noon and then gradually transitioning into higher carbohydrates because I eat for health, but I mainly eat for mental and physical functioning. I'm paying attention to how I feel and I want to be able to do my work. And so I think that's very important too. And it's a missing piece of the equation, which is it, you know, I wouldn't survive a day doing a, you know, six small meals of, you know, each macronutrient. I'd be, I'd have to cook. Do you think the answer for something like nutrition is that, you know, you can break the population up into kind of these six or 10 clusters and you should eat, you may, this might be the ideal diet or optimal diet for you. Or do you think it is, Hey, the solution you have actually might work for everybody. I like, do you think that I know it's not, not to the T of like, you know, exactly what you eat, but in terms of on one side, you got completely plant based on another side, you got completely carnivore. On the other side, it's just sort of no carb or low carb or slow carb, right? There's all these different varieties. Do you think the, do you think what it comes to humans knowing what is the optimal thing to eat? Is it that there are completely different configurations for different groups of people or that actually for humans, there actually would be one sort of optimal diet and then some, some with some edge cases? I have to assume that there's going to be some genetic bias towards certain things we're getting. So for instance, I lucked out, but I also suffer because I don't like alcohol. It just makes me go to sleep. So I don't care if there's alcohol or not. Some people really like a drink. That's probably genetic. It just doesn't, it makes me feel bad. It's not just that it doesn't make me feel good. It makes me feel bad. Do you, do you like to get fucked up at all? What do you, do you like drugs? Do you like anything? I don't really know. Drugs? No, I, I mean, you don't even smoke weed. No, I don't smoke weed. I never liked, I never liked marijuana or alcohol very much. I'm, my drug is learning and adrenaline. I do, I've had to work on the adrenaline part. I've, there's stories for another time. I put myself into some unhealthy situations and dangerous situations, but I, I come alive with dopamine and adrenaline in my system. So you don't, so you don't do any drugs. You don't, you really don't drink. I don't drink and do drugs either, but my advice is I'll eat like a whole box of Twinkies when I want to party. That's like, I'm like, yeah, like I'll plan out like two weeks out. I'm like, let's go eat a whole birthday party. Yeah, you don't do any of that. No, no, sure. I don't eat, you know, I would say about 85% of the time I eat clean, but, but I'll eat bread. I love bread and I love butter on it. You know, basically bread is a vehicle for butter, in my case, you know, I, and I, now watch the plant people are going to come out. There's a video, they already came after me, like you were in says butter is, look, if you increase your fats, your saturated fats a bit, do the blood work, you'll watch your serum testosterone go up and we can talk about testosterone if you want. But it's not necessarily good for your heart. I didn't say it was good for your heart. I said

it's good for your vitality, which is different in the short run than in the long run. But in terms of vices, I like caffeine. I do use certain stimulants over the counter stimulants, like I'll take L-tyrosine. These days I take 300 milligrams of alpha GPC if I really want to laser in. I don't do it anymore than two, three days a week maximum. And that's also in that second toolkit newsletter.

That and phenylethylamine or phenylalanine, those two combined and you're in a focused

tunnel. But I don't touch modafinil. I don't touch stimulants. I don't do recreational drugs. When I was in college, sure, I mean, I partied a bit. But also, you know, I don't need any chemical to say exactly what's on my mind or to withhold some of the things that are on my mind. So I, I'm, I just not been my thing. And, but also, I'm generally training in the morning, and I generally want to get work done. And, you know, look, I always admired people that could have a couple beers and relax, because it's such a big part of our culture. But that just didn't, that's not the way I went. You asked about, in terms of diets and genetic differences, well, you know, this is the same thing with sleep and chronotypes. We have people that prefer to stay up late and wake up late, and people that prefer to wake up early, and then it's a fairly normally distributed population. What should we do about this? Well, for instance, some people probably feel better eating more starches and less protein and maybe more plants. And some people, look, it looks to me like Joe Rogan's doing just fine on his elk meat and whatever else he's eating diet. I don't know. I don't, he seems like he's thriving. I will, I will say in full disclosure that the people that I know who are hormone augmented, I'm not talking about big bodybuilders, I'm talking about people that are taking low dose of testosterone, whether or not it's to replace something or not, they tend to crave or at least eat more proteins, because it increases protein synthesis. And, you know, that's me. Yeah. So I'm on it. I'm on it. I'm on it now. And prior to being on it, I worked on it for, I did it. I tried doing it naturally for like two years to increase. It was like 200. It was so low. And it was shit. And it was so low. And I was running a company at the time. I was so stressed out. So I like took time off. I ate me, I squatted, and then I started taking TRT and my life changed. And it was crazy. And then I started to eat more meat. And I didn't do it for body reasons. I did it for emotional reasons, but my body changed. I feel like a professional athlete at 32. It's pretty crazy how much that changed. But what you said on your one of your podcasts, it seems true, is that means I'll likely live. There's a likelihood that I will not live as long because there was like some, I don't know, if you said it or someone else, Sean, they did these studies, basically for some reason, there was this group where they would castrate you in China. I don't know if it was like done out of like being like a monk or something like that. Yeah. Yeah. And these guys didn't have dicks anymore and they castrated them and balls. They didn't have balls anymore. Yeah. And they, I mean, I didn't do the experiment, nor did I check the data, but I'm assuming they live longer. Like they consistently lived longer. And like, and so like, now that I'm on this, I'm like, I'm probably, maybe I'll, I'll live to be 90 instead of 95. I don't know who knows what it's going to be, but it's a pretty sick life. So that's kind of the sacrifice that I'm making. Yeah. Well, basically the idea is that that your story speaks to is a true one, which is that vitality and longevity are on, they're sort of orthogonal to one another. They're not counteracting one another, but they're kind of orthogonal to one another. And puberty is the

most rapid stage of aging in our entire life and it's accelerated aging. I mean, puberty is aging. It's just that you're not, it's across the, you know, you're thinking about it in the context of a portion of the entire life arc. So introducing hormones of the sort that were robust during puberty will accelerate that process. You just said that vitality and longevity are orthogonal, basically meaning the better and more optimized I want to feel the less I'm going to live. Not necessarily that they're, they're sort of off center to one another, but the, they're not counteracting one. They're not antagonistic. So here, let me explain and how this would work in the real world. So if you, well, let's use a, as an example, you decided to go on testosterone replacement. You're, you're told testosterone and you said was in the somewhere in the 200 nanogram per decilir range, which is below the normal reference range. So you go on and you, you're saying, and quite aptly that maybe that's going to shorten your life because of the way that it can negatively affect lipid profiles and things the way it affects the liver. There's a lot of biochemistry there we don't have time to go into, but that's true. However, testosterone will also, whether or not it's coming from endogenous sources or from replacement will also increase your energy level and your ability to lean into friction. You're going to be running more. You're going to be able to exercise more. So I have done a number of episodes on hormones, but one thing that's really important to understand because I get a lot of questions about this is that well, the main effect of testosterone is it makes effort feel good because of the way that it, you, you, it makes you, there's a readiness for challenge of all kinds, intellectual challenges, the way that I, the way that I describe to people is I'm like, I want to fight all the time and, and not necessarily fist fight, but I just want to be in a battle, whether it's a battle myself or yeah, I want, I want to fight. I want to go fight friction feels good. And so, um, and Robert Sapolsky, the great Robert Sapolsky was on my podcast and he said, you, they've done these experiments also, um, with, in, uh, out with altruistic acts of friction where people donating money, for instance, it's not just beating people up in this kind of thing. So, um, but, and I'm not suggesting people run out and get out on, get on TRT. I wanted a touch on that, but basically, so you could say, well, my blood lipid profiles are perhaps a bit worse, but with that extra energy, you could now start exercising four times a week plus, you know, cardio plus four times a week of weight training and recover with no problem, provided you're doing the other things that you need to do. Whereas if you weren't, you would probably be depleted. There's a depression component. And, you know, your finances would probably suffer, these kinds of things. Now, some people do not need testosterone in place. I'm going to just, because I think I'm, I'm kind of walking around the margins and people are probably wondering all, you know, as Huberman on TRT, um, is that what this is about? I'm 46 years old. I didn't, I didn't touch it until 45. I went 45 years. I've talked about some of the supplements that can naturally increase testosterone. You, you, you're on TRT. Oh, so from I'm 46 now, I started on my, uh, at 40, after 45. But let me, um, so, but, but let me explain, because I'm actually coming off. So that, um, that, so what I did is I'm, I'm, I'm researching a book. So I did 45 years of training and sleep and all the normal things found some supplements that will increase testosterone. Um, that's the Fidoge and Tonga Ali. You can see them at Joe Rogan episode. I talk a lot about this on the episode with Tim Ferriss. A number of women are taking Tonga Ali as a way to increase their free testosterone and getting quite good results. I don't have any relationship whatsoever to Tonga

Ali or Fidoge, a company. I don't care if you take it. Definitely check with your doctor. Um, there are some kind of spooky reports out there about Fidogea and toxicity of the cells in the, in the testes, but those seem to be limited to rat studies. Anyway, do your research. I'm not telling you what to do. Um, and you're responsible for your health, not me, but those supplements done properly from the right sources can increase testosterone by about 200 nanograms per deciliter. The most dramatic I've ever seen is a, is a shift from about 300 to, or high twos to like, you know, eights and nines. But when I went, but I decided to try TRT in a small dose spread throughout the week. Um, my testosterone at that time was already sitting in the high eights. So I was doing fine. And you, I did as an experiment for part of this book and it changes your mental frame. It makes you more self-directed, more willing to lean into challenge and counter to the popular belief. It makes you calmer. This is the thing that people don't realize. It gives you more energy, but it makes you calmer. The in primates, non-human primates and in humans, stressed, angry people are the ones that are in the kind of low to mid range of testosterone. Typically, typically there's their averages from a few studies. And I, and I always thought, I always thought, well, it just makes me more confident and confident men don't get upset easily. Uh, you know, like if someone's like yelling at me or like there's, and I'm like, like, I'm, my masculinity is not being challenged right now. I'm not, like, I'm not good. That's why people are like, oh, so you want to fight all the time? I'm like, well, actually, you know, the opposite. If someone gets in my face, I'm, I'm confident enough that I could, I can, I can walk away. You know what I mean? You're in your own, you maintain your own frame. You're not going to get, um, pulled off by projection or nowadays the, the buzzword is gaslighting. Everyone's gaslighting everybody without really under a very interesting psycho analysis. I've been fascinated by this for years and this whole concept of projection is very interesting. How do you actually shift someone's nervous system? This is not a good thing, but how does one shift their nervous system to change the mental frame of another nervous system? It's very interesting and kind of spooky stuff. When you start to think about how your nervous system will frame shift your frame, someone else's frame. Now this is vital too. When your child or your partner comes to you and says, I really, I'm really stressed about something, it requires a, a, an adaptive frame shift and you need to do that. People who are autistic or have Asperger's don't frame shift very well. They're very much in their own frame and they're very good at certain kinds of things and less good at others. Um, people who are highly empathic are susceptible empaths will know to getting yanked down different, um, frame shift pathways such that they can, oh my God, I haven't done anything with my life because I've been so consumed with so and so's thinking or feelings around things. So testosterone makes effort feel good. I'm talking about the effects on the brain. Let's leave aside all the effects on the body and yes, it might change blood lipid profiles, but in general, the energy is the component. It comprises a neural energy and an activation stance where then it's a question of what you do with that. So if you use as an excuse to eat a little less well, train a little less, then you're no better off and you might be worse off. If you use as an opportunity to lean into life, that's wonderful. I work with a number of professionals and athletes in a kind of consulting, um, uh, role to assist with some of this, uh, of course, with an endocrinologist as well. New parents, for instance, who decide they don't want any more kids and they're dealing with lack of sleep and all these things oftentimes benefit from that and the relationship can often benefit, um, for a number of reasons. So this is probably

a whole other discussion. I'd be happy to come on sometime and just talk all about the hormones because it's all estrogen is key. A lot of people in particular men are blocking estrogen when they take TRT, which is a terrible idea. Estrogen promotes brain longevity. Estrogen is good for connective tissues. It's good for libido blocking estrogen is a bad idea in most cases, but of course some people are worried about water retention or breast development in males. And so they're blocking estrogen. You have to work with an endocrinologist. So it's not testosterone is good. Estrogen is bad. That is absolutely, um, uh, that's very sophomore thinking. You know, it's, it's, it's more complex than that. Sean, did you get your, did you get your T test lately or no? No, but I also love the phrase sophomore thinking. I'm going to hit a bunch of people with that. Uh, that's how I'm going to combat people on Twitter from now on. I will comment on their gaslight on their sophomore thinking. Yeah. I will gaslight. The gaslighting thing is funny because, you know, gaslighting is where the basic people are saying that they're triggering them, right? Gaslighting is something very different and, uh, having, um, experience with borderline people, that's a very, it's a challenge both for the borderlines and for the people's in their lives. That's a real psychiatric challenge. So anytime I see these, these, uh, valid psychiatric terms being kind of bastardized on the internet, I get, I get a little bit, um, uh, a little bit. That's one of the challenges, right? Like pop science, pop, you know, the sort of like poppifying of everything. It'll be more viral, right? Like, you know, it's easy to make something viral when you take away all the nuance. You just say, this causes that blank statement, you know, blanket statement like that. And so, you know, I'm sure for a guy like you who's trying to actually get to the truth that that can be frustrating sometimes. Yeah. Hearing that, um, it depends is not an answer that goes very far, but, and here's where I'm hoping there's a tide change where, um, which is that if people can understand mechanism, they can start to understand

a little bit of, you know, we have this stress system and we hear that stress is bad, but you know, uh, a brief, I just did a podcast episode with Duncan French from the UFC performance Institute. Duncan's work has shown in peer reviewed studies that short-term stress raises testosterone, stressed at last more than a day or two or training sessions that go more than 90 minutes. That depletes testosterone. So is stress bad for, for reproduction? It depends. So, but if people can understand mechanism, then they can start to understand. Hey, an ice bath is stress, but it will protect you against illness because in the short term, adrenaline buffers you against infection because adrenaline is the signal by which your immune system says, Oh my goodness, I need to combat something. So if people can understand mechanism, then it doesn't matter if you're talking about acupuncture, cold bath, sauna, lifting weights, sprinting, you know, bickering yoga, people can, I believe that people are smart and that if you extend a hand of, uh, that lends some respect to their intelligence, that they'll come along for the discussion about mechanism and that even if I were to get hit by a bus tomorrow, that then they could digest the next wave of information coming to them in a much more nuanced way. Of course, people still need protocol. They need a jumping off point. And so that's why my podcast has been mainly about that. But I think science and health information on the internet is changing very quickly. Thanks. Here again, I just have to say it was seeing Lex Friedman's podcast. I don't know what the equivalent is in the, in the finance and entrepreneurial

area. Maybe it's you guys, but in the kind of general landscape of podcasting, I saw Lex's podcast for the first time and I thought, this guy is having really intense intellectual conversation. Yeah. He's so good. He's so weird in a cool way. He's so interesting. He's unique. He's kind of punk rock. I mean, Lex is very punk rock. I mean, his, his lifestyle, if you think my lifestyle is unique, I mean, Lex, well, maybe just get him on the podcast. He's a, he's a really, I'll let him do the speaking for himself. But I think that once someone's out there doing that, it's very hard for people to follow suit with the kind of low level version of that. So what I love, and I have listened to your podcast, what I love about your podcast, what I love about Ferris and Rogan and Lex and rich role, and I'm missing a few, right? And I'm going to regret it later though, I'm not remembering these names, but because there are others, of course, is that if, if Sagar and Jetty's news channel, for instance, remarkable is that if we all push each other to constantly try and increase the quality and the value per unit time of a podcast, even if it's not just protocols, but it's a style of discourse like we've done today, that to me is going to elevate the, the medium as something that is a serious thing instead of just the, you know, chatter. Do you, how big is your audience right now? So on, it looks like on YouTube, you've had 16 million views. You've been around for 10 months. So you're, that's north of a million views a month on YouTube. What about on, on podcast? Yeah. So on Instagram, I think we're sitting somewhere around like 730,000 followers or something like that. But that's just really, I do put out unique content there that separate from the podcast from time to time, but you're going to laugh, but I actually, and I'm not cloaking anything. I actually don't tell me you don't know. I don't know. I don't know. So that's Rob. So Rob and we have a web, a web guy. I mean, you got to, if I had a guest, like five to 10 million a month, that sounds about right. I think it's on the higher end of that. I think, I know that's right. Cause if it's about two million per episode in the first couple of weeks, is that something I don't know? I'm, you're at two million, you're at two million an episode. I don't know. I should ask Rob. Otherwise, you're killing me. Do you realize that like, listen, do you realize what to surely Tim or whoever has talked to you and Joe has talked to you with two million downloads and episode, dude, you, you're rich. You're very, you can be very wealthy. I'm shocked that you're still a teaching. I'm still wearing the same shirt every day. I looked up before the podcast, average salary before the podcast. And I was like, this guy could easily be banking a few million dollars a year and doing the exact same thing you're doing now. It's not like you'd have to go shift to doing something else. And I thought, I thought, what do professors make? Here's what I looked up. Stand for professor. This is what's on the internet. No idea if this is true or not. Stand for professor will, average professor will make somewhere between 200 to \$225,000 per year, which is obviously a great living for, for a lot of people. But I thought, that's high for an academic, for a non-MD academic. Oh, the pay is, it's not just Stanford. It's abysmal. In the Bay Area, and I want to be respectful. People have different needs and costs. But that's in the Bay Area, that's a tough, tough life for someone with kids. You know, depends. Not tough life, but anyway, I'm going to get some haters for this, but you know what? Come hang out. Come hang out. And have you, have you enjoyed being famous? Well, okay. So a couple of things. One about the, the views, I really do need to check with Rob on the numbers. I don't know. I don't track that. I know we're doing well. One thing in the business side, since you have this audience, I only advertise products I actually use. I've been

using Athletic Greens for over a decade, right? So I love that stuff. I don't, we stay with a limited number of advertisers. Inside Tracker. I bought them. I use, I use my code, Huberman. Huberman? Yes. We work with Thornt. Thank you. We work with, Athletic Greens is, is a, for me, was a really good supplement. It's the only one I set aside money for as a student and postdoc, or as a postdoc and professor, because it covered a lot of things. So expensive though. Yeah. It, I feel better when I take it. So that's why I take it, but I get it. No, it's, it is like a hundred and fifty two hundred dollars a month, I think at this point. There's a cost there. It, yeah. So obviously it has to be within the scope of someone's decisions of around finances, but the sleep cocktail. So we work with Thornt because the great thing about Thornt is the quality of their supplements is so good that you can actually take less of Thornt supplements in my experience and get away with it. But there are other great supplement companies out there. I'm not here to plug the, the, our sponsors, but I do. Obviously, that's the way podcasts make money. And I pay my staff, which is Rob and Mike and Ian. And we have a few others as well. I should mention one thing about the medium and as a business model. So I've never talked about this, but the human lab podcast is but one of several podcasts under a company that I founded with Rob. So David Sinclair from Harvard genetics. Yeah. Professor at Harvard lifespan, right? Lifespan. So he's launching the lifespan podcast with David Sinclair. And you're, and you're owning this? Yeah, I own that podcast network. And so we're working on the front end and back end materials of that. Me and Mike Playback are the creatives on that with that. So smart aesthetic and the, and it'll be very different than mine, right? Because David, I mean, he's, you know, I wouldn't think we're different. David, you're gonna, you're beating, you're, you're, you're building this media business all sitting around longevity and healthy and longevity and mental and physical health. I don't know. We'll call it mental fitness. That's a word that we've used, mental fitness. You're going to crush this. This is going to be huge. Thanks. Well, the goal is really that, for instance, many professors have excellent information they can share on gut microbiome, on addiction, on ADHD that goes well beyond the depth that I can provide in one of my episodes. And so they need to do six or seven episodes, but they probably don't need to do a podcast in perpetuity. And so the idea is to have a set of podcasts that you can come to, mine if you like, David's if you like, maybe you, God forbid you have a relative dealing with Parkinson's and hear from somebody what you can really do about that or Alzheimer's or you have a kid and you want to know

what are the science-based practices for getting a kid to sleep and for neuroplasticity in a child. Well, let's talk to a world expert in that. And, and so the, the idea is to have an umbrella for multiple podcasts, the Huberman Lab podcast is, but one of those that I plan to continue, David's is going to be the second and we've got a third and a fourth that are revving up now. And who knows,

maybe we should do one on, I don't know, something related to crypto or something. I don't, I only know what I know and I know academics, I know science and I know medicine. And so that's what I'm going to bring to the table. This is awesome. You know, I had this belief a while back, which was, I remember thinking about my favorite science teacher when I was growing up in high school. And, uh, he was great, but he would, and I just thought about like his kind of like sphere of impact, like he could, you know, he, each class about 20 kids, he would teach five classes a day,

so he'd teach about a hundred kids a day. And so, you know, his reach as like my best teacher growing up was a hundred students a day, a hundred students a year, essentially was what he was able

to reach. And then with the internet, I just thought, wow, this is going to change. The best teachers in the world are going to have millions of students and they're going to make millions of dollars as they should, um, for being amazing teachers. And I've always been looking out for, and I've been investing in every platform I can get my hands on, anywhere I can see that teachers are able to do that, where they're able to scale and have millions of students and have, because, you know, if I'm going to learn math or I'm going to learn about nutrition, I can either learn locally, like that's the way the world always worked. I just learned from my best local teacher that was available to me, or now I can learn globally. So I can find actually who is the best at not only being an expert, but packaging it and conveying it in a way that's entertaining, that's relatable, that's, that fits me, right? And so, you know, that's what you're doing. You're the perfect example of something I've been thinking about for 10 years of why isn't the world moving this way? And actually it is, it's just, it wasn't through online school. It was through things like podcasting or newsletters. And it's more popular in other countries, you know, China and does a really good job of this. They've got, we've done some case studies on some Chinese teachers who make tens of millions of dollars a year. Superstars. Superstars. They're like musicians and athletes. There's teachers that are like that. Yeah. Same with India. You know, Sean, we have that, you sent that, you shared with me that really cool photo of a guy in India teaching math and it looked like he was a comedian because there was like a stadium. Andrew, have you ever heard of this guy? His name's Biju. No. He's a guy in India. He's a, I'll have to check it out. He's a math teacher. He would teach in like local villages and people love learning math from him. So either he would go to other cities and they would come find him because it had spread the word of mouth. Eventually he was filling up stadiums free, you know, free to attend. He was just teaching math on a projector in a 20,000 person stadium. And now he created it. He created an app. It's like a \$10 billion education app in India. But, you know, like that was his origin story. And I thought that was just an amazing story. I love it. You know, and I love the model around podcasting because yes, you have to tolerate some ads, but advertisers are happy. Consumers are happy. And it's zero cost to consumer. That to me is like, if ever there was order in a universe, not the universe, but in a universe, that's it. Yes, but it sucks. So do you know what, do you know my company at all? Or did you know my company? I'm afraid I don't. It's all good. So it's all good. So we owned this. And then we owned this thing called, I started this company called the hustle, which was a daily email that reached about two million people a day for business news. We just sold it to HubSpot for many tens of millions of dollars. And we are making, you know, \$20 million on ads. So we made a lot of money. And the problem with ads is it's cool when you're doing it now because you can pick and choose thorn, athletic greens, you can pick and choose cool shit. And that's exactly how we started. But then you get staff and you're like, all right, we're going to try and triple every year. And so in order to triple every year, like there's not that many thorns and athletic greens, then you got to go look at like some other bullshit. And you're like, well, well, we got to hit these growth numbers. It's so it's so it kind of, you,

I don't think he worships at the altar of year over year growth the way that we do. And I think that's awesome. No, no, but you always think about it. For example, what if I talked shit about athletic greens and let's say they did something kind of wrong and you wouldn't happen. Well, that's my point. That's exactly my point. You will say, well, I don't know. You know what I mean? It's it's even the most honest people and good people. You are everyone. We're all incentivized something. And so maybe like he would be willing to defend them a little bit more because they're giving him money, which is a natural thing. You know what I mean? Yeah. Yeah. So that that is an issue. I mean, I think that and we do care about growth. But and the reason we built out a philanthropic arm of this company is because I really I empathize with the struggle that academic scientists live in day to day, which is that they don't have time to do their own research, let alone work for the world, which is what they're really hired to do their grants come mainly from public sources. So we're trying to think about ways that we can start to pump some money back into science through the podcast. So money coming into the podcast actually represents some of it money going back into the scientific community to do better work. We're starting to explore NFTs and some of how that might be incorporated. Twitter is a great place to learn about that. I just want to say that the NFT landscape and crypto landscape people are so kind. It's like they're trying to come what it's kind of all in. It kind of reminds me of the early punk rock movement is they know I'm paying attention to their energy. I don't understand a darn thing. It is punk rock. It is very everybody would love to sell you their token and their currency and why? Yeah. Tell you about it because they are we're all you know selling our own holdings basically. Interesting. Wait until you say something bad about them though. Okay. Well, I tend. Yeah, I hope not to do that, at least not by accident, but I just noticed that there's a there's I love the DIY spirit. Look, I'm a patriot too. I'm sure you have an international audience. But look, my dad's a first generation immigrant. This this country is amazing from where from Argentina. So he's not you know, he wasn't from someplace where he was stricken, but he came here on a Navy scholarship. He's a physicist. You know, this is a country where you can make lateral moves. It's hard to ascend. All right. And we should acknowledge that not everyone starts in the same place and and the the slope is different for different people. No question. But you can make lateral moves here and the you know, think about this, the Nobel Prize is given each year, for instance, the world is big, the world of science is big. Most Nobel Prizes include or are given to people in the US. And we have one of the most difficult funding schemes for getting money to do research in this country. Now, compared to third world countries, we're very wealthy in the research realm. But compared to other countries where they basically stock the laboratories with money, it's it's incredible. Here we have these individual labs, like doing little like startup style workshop stuff. It's that grind is that leaning into friction that I really believe is is the hallmark of future development. And so science doesn't have that. We didn't have a podcast platform or information platform. And I'm hoping that my podcast and the others like David's and the other ones that come out through our company will will soon populate. I'd love to see more of this done out there. There's you know, there's some smart guy or gal is out there thinking like, hmm, like I'm going to I'm going to do the podcast on amphibians because I love frogs and I'm going to like tell people which terrarium to get. And like, it's going to be the terrarium of the podcast. And you never know what's going to what's going

to work. But I love that spirit, the entrepreneurial spirit. So that's what we're trying to bring. Well, dude, thanks for coming on. This is badass. We we haven't done a podcast this long and a long time. By the way, we had, I'll tell you really quick, we had Rob Deerdic on recently. Oh, yeah. And he is I forget what we were talking about skateboarding and like wealth or something, but he's like the wealthiest. Yeah, Rob wouldn't know me, but he's tight with Mike Blaback because Rob and big big unfortunately passed away. And Mike did all the photos for that. And that looks skateboarders. If you want to know what's really cool and how to do real DIY spirit, you just skateboarders. They just I'm going to go. I'm going to brag. I'm going to brag after this. I'm going to send you a video of my latest 360 flip. So don't worry. I'll send it to you. Oh, yeah, I can't do it. I've got no tray flip. But the I read a pool, but I'm I'm not I'm not that good. Dude, you're you're a bad ass, man. I'm I'm so excited to talk to you. I feel inspired after having a conversation with you. You're very you're you're very interesting. You're going to be a much bigger deal in the next two or three years than you already are. And it was an honor that we got to speak with you. Oh, well, I want to say genuine thanks for having me on. I felt immediate resonance. I'm very much like a can sense that. So I think it'd be great to get together in person sometime. Do people still do that? I don't know. Are you in California? You're Northern California. I split my time now between the Bay Area and Southern California. So where are you guys? I mean, I'm in Bay Area. Yeah, we both we both live there. I live in San Francisco for eight or nine years. I just bought a house in Texas. And so I'm in Austin as of now, but I'm a little bit nomadic. So I'm kind of all over the place. Well, I'm going to be in Austin a bunch because I hang out with Lex there. He's going to take me to Jiu Jitsu again last time. And I did a real naked choke. He lives in Austin. I've never done it before. He's a black belt. So I don't know. He lived in Austin. Well, dude, I have a I have a gym here at my house, like a really nice gym. And I have people come over and we can lift heavy. I lift heavy. And also we could box. I beat people up all the time. So if you want to fucking fight, great, do that. We could we could roll. I do everything. This is not this is not a we probably shouldn't box. I boxed. I had my boxing card and boxed pretty consistently various times. I'm not very good. You don't get a nose like this to a yoga. So it let's not box. Come on, man. I got a roller. We could do anything you want. I'm fit. This is the this is the TRT speaking, folks. Yes. It would be great fun. I'll pass you guys my number by email. Just let's text that we're we're in the we'll take it into the real world. Thank you, man. Talk soon. Thanks so much.