Your Questions Answered - Bret and Heather 89th DarkHorse Po...

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**SPEAKERS**

Bret, Heather

**Bret** 00:14

Hey folks, welcome back to the Dark Horse podcast live stream at nine Q and A's segment all queued up,

**Heather** 00:23

all queued up, here we go. And we got Fairfax on screen as well. Here's our buddy still missing his friend. Okay, um, we had a number of number of questions about about Sam Harris and I think we're only going to address one of them just because we could spend a lot of time in the weeds here. Someone suggests someone asks, What is going on this latest podcast from yesterday senate scripted by Big Pharma? Is there any way you can have a discussion with him?

**Bret** 00:52

Yeah, I don't see it that way. I think, basically, there's one error that is propagated throughout the one error is imagining that the truth of the situation is clear that the science, the science has led to a clear conclusion, and that anybody who is not on board with that conclusion is therefore making an error. And it's basically a treasure hunt to look for where the error is. I see Sam as a person of extreme integrity. I do not see him as likely to be corrupted by anything mundane. I do think he has blind spots, as we all do. But no, I don't think that's what's going on. I think. I think he was not familiar enough with our position to evaluate it. And he leaped too quickly. But anyway, I we are open to discussion with Sam. However, he would like to do that so that we can get to the bottom of the truth of that. And if if there are things that we don't see, we are of course, eager to find out what they are. At the moment it doesn't look like that's the way it will happen. But, but we are open to it.

**Heather** 02:07

Yeah. Okay, so we're gonna do some, some COVID questions, and then and then move into sleep questions. So isn't quite working like I thought it was going to so I have to now find what I thought was going to be next Here we go. Do you have a sense of how many if any, who are on the recommended prophylactic dose of ivermectin have point two milligrams per kilogram of body weight per week have gotten sick with COVID? Man? Do I wish I knew the answer this? Yes. I have no idea. And I don't know that the the data are being collected in part at least in this country, because it's not being prescribed and so many people who are on it are not on it officially.

**Bret** 02:50

I agree that ridiculous. There are lots of obstacles to that data emerging. What I have not seen and I do pay attention to places where anecdotes would accrue. I have not seen anecdotes to this effect. Yeah. So anyway, what I'm I'm hopeful that it is highly effective if you do it, right. Yeah. But obviously we would want a bigger data set. Yeah, I want it systematically collected

**Heather** 03:15

and I have you know, I've this this is anecdotal, but I've heard from a couple of people who I respect who were vaccinated against COVID and who are very pro vaccinated and are concerned about those of us who are not one of them similar stories in both cases, but one in particular said, Oh, you know, I've been seeing these, this person's medical professional. I've been seeing these Doc, the doctor posting on Facebook, you know, the sort of the glassy lung stuff, ground glass on the ground glass opacities and it wasn't as it actually showed me the pictures and he's like, it doesn't really look like the ground glass. opacities but it's it's it's similar. And he said that, you know, this doctor just posting all this stuff, and it's all unvaccinated people and just really concerned about unvaccinated people. unvaccinated people. And I asked this this friend, this acquaintance of ours. What do you know? You know, is this person only saying these are unvaccinated people? Or are they giving any more resolution on that for instance, are any of these people on ivermectin and this is someone who like I said is you know was hesitant at first because they were brand new once they were a couple of months of data out got himself vaccinated all the staff who worked with vaccinated is concerned for those of us who are not but said oh, you know that's that's a really good question. You know, all the evidence I this person said obscene suggests that it probably wouldn't be protected, but I don't know the answer to that. And so there is a kind of a fear mongering and sometimes it is unintentional, that is happening. And, you know, we really want to know I really would like to know what the evidence is.

**Bret** 04:59

You're saying It is likely that ivermectin would be protective. Is that what you're saying?

**Heather** 05:05

I think it probably would be given that we have all this evidence that it is effective and prophylaxis and effective and treatment, but I don't but

**Bret** 05:13

but but when you say that you're saying that you sounds likely logically speaking, that it would be protective if given as a treatment rather than a prophylactic.

**Heather** 05:24

I mean, it could be either. These this is this is the doctor who's having patients coming into his zoo. That's the person I know. The doctors coming patients coming into his hospital and reporting. Look at what is look at what I'm seeing and all of these unvaccinated patients who have COVID now if and so you know, my my question to my friend was, were those people. Were any of those people that ivermectin now that question would apply either were they on it? prophylactically? Or were they were they given it as part of a treatment? And

**Bret** 05:54

well, I would say we can we can put a little color on this because the Coronavirus study seems to indicate that it prevents contraction. And so

**Heather** 06:05

like we not we not have all of this evidence. And just in this particular case, we don't have the data. We don't have the data on these particular things. And this is the sort of thing that is being produced and distributed out there. Oh, look, it's the unvaccinated people who are getting sick like well, is unvaccinated the right category? Right? Is unvaccinated and doesn't have natural immunity? Because because they once had COVID and is also not either on ivermectin prophylactically and not being given for treatment, is it that category we're talking about? Because that's a much smaller category. And also you have agency once you're talking about that category? Because there are things you can do. Right? Right. Whereas vaccinated versus unvaccinated basically just says, the only agency that you have in the system is you can choose to get one of these these novel vaccines or you can choose not to. And actually there is more choice than that. And we would be in a very different landscape, we would be in a very different landscape if there weren't good pro black Southern. And you know, everybody consult the only one. We've talked about this before, right? You know, there's the stuff in the protocols include C and D and zinc. And carageenan appears to be have potential, you know, there are a lot of things potential and we will be having different conversations if there was nothing out there that appeared to have prophylactic efficacy.

**Bret** 07:21

Right. And we're also apparently not official guidance has restricted the collection of data on those who contract COVID post vaccination if they're not above some certain threshold of severity.

**Heather** 07:36

Right. I have begun to see I won't be able to pull it up now. But I have begun to see some mainstream pushback against that, like, hey, why wouldn't it be good to have data? Wouldn't it be good to have actually complete data? What was that that was the CDC decision? minor cases of COVID and those who have been vaccinated, those data we're not going to collect anymore? Great. Okay. Lovely, Heather, and Brad, how are you both? We're so grateful for you. If someone with COVID has been in our home, how long can it stay in the air and on surfaces? We cannot find up to date information anywhere.

**Bret** 08:13

I think we can do a pretty good job of this for one thing, especially statistically speaking, it's very likely that you are in the Northern Hemisphere, because that's where people tend to be. I mean, it is. But anyway, hey, it's the northern hemisphere. It's summer. Do what we do. Open all your windows, turn on whatever fans anything that increases airflow, you can mean basically,

**Heather** 08:40

yeah, in that case, like everything, like air filters, fans, windows, everything, yeah,

**Bret** 08:45

everything, you know, and go outside, after

**Heather** 08:50

you know, that person is asking how long until their home is safe?

**Bret** 08:53

Well, here's the problem. Okay. We know that there's not very much transmission on surfaces. Does that mean it's impossible? No, it can't be impossible is not. It's a standard beyond which you can go ahead and clean the surfaces? Well, I would certainly clean, you know, the few surfaces that are likely that they contacted and likely that you will contact and basically it's a diminishing returns problem. But probably if you did nothing of that sort, the services aren't where you would contract the disease, it's in the air, it stays in the air, you can reduce that effect by allowing diffusion to purify your air more quickly. The more your air, the more the more surface area your building has exposed to the world where it's exchanging, the faster it will clear. The you know, I guess the thing is, it's the it's the model that we were developing at the beginning of this whole thing. If somebody that turns out to be sick or that you don't know and you think they may have been sick or you just simply unaware, you know If they spent a bunch of time in some room, then that room is much more compromised than any other place. And, you know, airing it out makes sense staying out of it so that you know, things that have hung in the air have time to settle. All of these things will help. But well, it made me maybe that's that's just it. Yeah, I don't I think at the very least, it's going to be a decay rate issue. And there comes a point at which the likely modes of transmission have decayed back so close to baseline that it would be undetectable. Yeah.

**Heather** 10:37

Yeah, we're not coming up with any numbers. But if you've got a lot of windows and you open them all, and there's any sort of breeze at all, you're gonna, you're gonna have a net complete exchange of air, and not too many hours. Should be Yep. All right. Anybody? This is interesting claim. I don't know if it's true. The cdc.gov website has the actual number of COVID cases that have occurred in the us at 114. Point 6 million important piece of information. Question mark. I think it's if if I just don't wait, this is actually pieces of COVID cases of COVID. In the US numbers this way. I know 100 and 14 million in the US.

**Bret** 11:28

100 14 million. Sorry, I misunderstood the number. No, I think that's actually in keeping with the expectation. Yeah.

**Heather** 11:36

Okay. So important piece of information. I'm going to want to vet it, but it's certainly well, relevant. Yes. I mean, so I mean, it's relevant in that

**Heather** 11:53

if COVID confers natural immunity, and 114 people are contributing to herd immunity, in addition to the however many 200 plus million people who have actually been vaccinated, aren't, don't we have herd immunity? Well, but we don't. Right. So there's something wrong with that analysis? Because the thing is spreading?

**Bret** 12:12

What we don't know, as far as I know, I've seen no data on it is to what extent the unvaccinated and the post COVID overlap. Right? Right. They could be completely independent, and it could be that people are getting vaccinated, and they're having had COVID is is a non factor in their decision making. Or it could be that to the extent that people are vaccine hesitant if you have had COVID. And you've been told that you have immunity, that it causes you to be less likely to be vaccinated In which case, yes, the you would have a composite number. That would be you know, and I wondered about this, during Sam's podcast is we just simply don't know what fraction of the unvaccinated are actually immune. Yeah, in a formal sense.

**Heather** 13:02

There were a good, accurate data.

**Bret** 13:06

Well, but this isn't Isn't this the most amazing thing about this pandemic is how we can't, you know, a, we can generate these utterly remarkable vaccines. lightning fast, we can't figure out how to collect decent data on who's been sick, or any I mean, it's just amazing that we have not gotten reliable tests where people can simply establish,

**Heather** 13:33

that's a different thing. But yes, that two tests testing data on just how about instead of person vaccinate or not add four additional parameters to the data that you're taking, and hey, you have a lot more things that you can begin to explain.

**Bret** 13:50

But you would imagine that we would have excellent data on who comes down, you know, of the various variants who is coming down with what variants after what measures? Right, you would just simply want that and we can't seem to

**Heather** 14:07

get it? Yeah, I think some of the data coming out of Israel seems to be better now. It's a much smaller population. They have you know, much, it's much more it's been much more homogeneous with regard to the response at the population level for the various measures. But But yeah, we're doing a crappy job. And you know, and have been since the beginning, you know, and it's it was it was very easy in the beginning to point to Trump and say he's, he's watching this completely, but it's just continued to be botched. It's like one continuous botched job. Yes, nobody

**Bret** 14:41

has de botched it. Yeah.

**Heather** 14:42

No de Bachchan.

**Bret** 14:43

Yeah. No, look at the beginning. You had Trump, but you also had the fact that we were scrambling, right. This is no longer something that we can dismiss, as you know, everybody's trying to get their footing. So anyway, there's something conspicuous and it's no critical. It's differently political. It's

**Heather** 15:06

differently political, but it's equally damaging to actual progress and getting this thing done with

**Bret** 15:14

you and your progress right now.

**Heather** 15:15

Sorry. No question. Just wanted to thank you. I'm day five with COVID. And I have Ms. But doing great thanks to ivermectin that you introduced me to. from Greece.

**Bret** 15:26

Wow. Good luck.

**Heather** 15:28

Good luck.

**Bret** 15:29

That's. That's rough. I'm glad it's working for you.

**Heather** 15:32

Indeed. Is there any evidence that people on prophylactic ivermectin who have been exposed to SARS, Coby, to develop some immunity?

**Bret** 15:40

This is one of these questions you would really want to know. Yeah, I would guess is no, I would have to say my instinct is no. And the reason that it's no is that what data we have so a you have very good protection, it appears from symptoms. And then we have some data that says that the reason you were very well protected from symptoms, if you use a prophylactically, is that you don't contract. Right. So the car bio study in particular suggests that because it used a PCR test to assess whether or not people were positive or negative for COVID, after using ivermectin. Yeah. So what that suggests is that you don't have the opportunity to generate immunity because you haven't had a battle with the pathogen. On the other hand, there is always this lurking question about whether or not our immune systems actually have a kind of ability to sense us stuff in the environment. Right. And I haven't seen it compellingly demonstrated, but there's a question about whether or not an encounter with COVID, in which you didn't get infected, could still convey some immunity. But wouldn't that be amazing? It would be amazing, and it wouldn't be, you know,

**Heather** 16:57

it's exactly the kind of thing be totally novel in the history of humans interacting with it

**Bret** 17:01

would make sense for the immune system to figure out how to get a, you know, to basically self vaccinate with information from pathogens. Yeah. However, the papers distinguish between the two and you showed two papers, those papers suggest mechanisms of the acquisition of immunity, and to the extent that someone could potentially get immunity from an exposure that did not cause an infection, it is liable to be much dimmer than the immunity that people have gotten from these infections. The intensity of interaction between the immune system and and the pathogen, in the case of an infection generates a broad scale immunity. So I guess what I'm saying is at a technical level, it might be that somebody who was fully protected from contracting the disease could still get some immunity, but I sure wouldn't count on it.

**Heather** 17:56

In Brett's how the magic trick is done speech from three years ago. This happened, he declared that an epidemic of he declared an epidemic of cowardice, and claimed the solution was to, quote engineer a mechanism to cultivate security for those who stand up. Society is still crippled by the simple problem of talented individuals avoiding the cost of fighting Goliath. Since Brett's proposal, Have either of you seen any progress towards being able to provide people with enough security to be able to join our collective David?

**Bret** 18:26

Nothing formal, I do think that there is ever more recognition of the importance of this point. So I've made that point now in several other places, and I've been involved in and seen discussions of it, I think it I think, basically, it's right, and people resonate with it, because because it's clear that the absence of security makes it very difficult for most people, the absence of securities are real for most people, and the absence of security, obviously have implications has implications for people's willingness to take a courageous stand. And so anyway, I guess we are waiting for a formal mechanism. But I think informally, many people have spotted that this is a real hazard and therefore a real opportunity to to upgrade our, our capacity to fight.

**Heather** 19:26

Did you want to take this opportunity to show that or should we Why not? Okay.

19:30

So yeah, we forgot to do that earlier.

**Heather** 19:31

We forgot to do this. Someone in our audience bought one of these Glarus shirts and took a picture of himself outside Google headquarters. And I think it's

**Bret** 19:42

fabulous, and we shall call him el Hunnam. Yeah, it's just great. Yep. Yeah. Really is.

**Heather** 19:50

Alright. Let's say regarding regarding memories, storage. Thought, and perhaps memory of sights, sounds and smells are stored separately and brain has the recipes to bring up those ingredients to create the full memory. Does this make sense evolutionarily? The next thing is something different. Okay. So I think I understand what's being proposed? Yes,

**Bret** 20:24

I would say it, you know, to the extent that it is true that we store these things separately? The mean, the answer is yes, it will make sense that we do so would it also make sense to store them? collectively? Yes, you could come up with a different scheme for doing that. I don't think we have a proper explanation on the table for why memory utilizes these things in the way it does. And in fact, it's something I'm I'm hoping to deploy soon, there is a hypothesis that I think neaten this up our understanding of how these things interact. And I'm eager to get it on the table.

**Heather** 21:05

Cool. I will say, I've written about the Association of memory with, with smell, and particular in that memories of a mugging piece in which I explore among other things, the long ago association of basically the the telencephalon, the front of the five parts of the vertebrate brain, that in mammals turns into what is basically most of what you think of when you think of our brain or cerebellar hemispheres. And that primitively that front most part, that most anterior part of the brain is associated with smell. And so the fact that now it is being is being used for memory and for thinking ahead, you know, for both planning, planning in both directions, and along in time, and I think also some mapping actually. So it's sort of a time space aggregator. It shouldn't surprise us then that there will be sort of some prehistoric glimmers of smell, bringing up memory in a way that some of the other senses, I guess the other senses don't tend to do in quite the same way. But that of course, could you know, could be chalked up to each of the senses is different. It works differently.

**Bret** 22:19

I think if I can allow me to sum up what you're saying the ancient telencephalon has now become the show and tout telencephalon. Show and telencephalon. Yeah, I don't want to do this to you. But it's it's spelled. I've been curious. Yeah. Spelling was invented. So lady good does pretty good. Pretty good. It was not the delivery object

**Heather** 22:41

to Yeah, I think that is, you know, as you know, is it at the point that you've got one? It's clear that you are not paying attention to anything that happened. I

**Bret** 22:50

read it all. I could repeat every Yes, but

**Heather** 22:53

I stopped talking. It's like great. Okay, go on. Tell me anything. No, they already did. Yes. My point. Oh, yeah. You already did. And so I stopped talking.

**Bret** 23:02

I mean, I would show when I was I was having a good time, I could tell my promo pun actually match what you were saying better and better. The more you went on. I was I was I was I was pretty

**Heather** 23:13

pleased. I will point out that Fairfax is not impressed.

**Bret** 23:15

He's, he's nonplussed. Again, yes. Yeah.

**Heather** 23:21

Okay. Regarding dreams and brains requiring a lot of energy to maintain, why do we think that evolution is done with our brains? And that's the result. Maybe this is a dead end? evolution is not done with our brands?

**Bret** 23:34

No, not at all. It's not. Hello, friend. Um, let's put it this way. I don't think done with our brains is the idea. The point though, and a major theme of our book, is that we are a special creature by virtue of having a generalist hardware platform that is amenable not only to having it software swapped out, but to bootstrapping new software for circumstances that our ancestors did not know anything about. And so the real answer to the question is it's not that selection is or isn't done with our brain, it's that the return on investment comes from two places. One is bootstrapping new software. And two is division of cognitive labor, right by teaming up with other individuals who have other areas of insight specialties. strengths, we are capable of out thinking the sum of our parts by leaps and bounds and these two things are connected, right? We get together around the campfire as we presented in the book. And what we do is we figure out how to think about things we don't know how to think about and once we have figured it out, it gets driven into a layer of the culture layer that is very efficiently transmitted, one generation Next. And this mechanism is so much better at enhancing what we are capable of understanding and capable of doing, then upgrading the wetware of our brains that you should expect to see software upgraded over time and the wetware not changed very much not because selection has given up on it, but because it is concentrated somewhere else where effectively there's no limit. Why? Because even to the extent that your skull has cognitive limits, your kin group does not.

**Heather** 25:31

Yes. Good. I realized that I forgot the discord question for this week. And it's a fun one. Hold on, I gotta pull it up. And it comes with a picture. If zebras coats, discouraged flies, why haven't all horses made this adaptation? And why would zebras do this specifically, and they link to an article in The Atlantic Can you can show my screen here, Zach, this is from 2019. I think the surprising reasons zebras have stripes. By putting black and white coats on horses, a new study shows the pattern discourages biting flies from landing, and we have a horse wearing a striped coat. So

**Bret** 26:15

well, so the question is, why haven't

**Heather** 26:19

if this benefit exists, why aren't all horses striped? But in my first top of my top of my head, is that in the environments in which non striped horses you know, new world horses exist, or I guess, actually non striped horses exist everywhere, but Africa, everywhere that horses exist are not striped except in Africa. That, you know, they're, they're not easy to predict, except when they're young. But the striping is, is going to help with camouflage in some environments, and very much not in other environments. And the flies are going to be a problem in some environments, and somewhat less of a problem and other environments and the various trade offs they're in are going to render a more camouflage coat that might not be stripy. a better choice in especially in an environment that doesn't have quite so many flies or if even if the flies seem annoying if they're not carrying so many diseases.

**Bret** 27:17

Yeah, so a it could be that the hazard of the flies so a trade off wise I would argue probably if that code is really about discouraging flies, it comes at a cost. Right right. And so the point is why would you bear that cost assuming that there is a cost Why would you bear it and one of the reasons you might is because your flies are more dangerous so I couldn't tell you whether seeds he flies by horses, sleeping sickness and

**Heather** 27:47

all these I can certainly come up with lots of examples of fly borne illnesses.

**Bret** 27:51

So it could be that it's the fly borne illnesses rather than the flies themselves. But I do think it is interesting that it has created a quote based inequity Oh terrible right inequity Yeah, I got it yeah yeah you did I just inequity inequity Yep. Okay, right. I mean, that's all that's gonna go much farther than Oh, no,

**Heather** 28:21

you can't Yeah. My brother and I have a few days for backpacking trip we can gain a day of hiking if we lose a night of sleep and drive from LA x to the Sierra is at 11pm worth it or bad idea

**Bret** 28:34

if you are willing to accept the reduction in your overall health going forward from the lack of sleep No, I think this is actually how the calculation works. not sleeping is bad for you. There are reasons Am I wrong that I'm answering exactly the question they've asked

**Heather** 28:58

but they but this is this is asked presumably as we're talking about sleep in the last hour Yeah. And so like they they know that there are costs so they're asking for an analysis that's not totally gone gone.

**Bret** 29:12

I mean, this is how I would do the calculation that there are certain things worth giving up you know you will the effects on your health from a single night of surrendered sleep be measurable almost certainly not. But if you make these kinds of decisions regularly, then you will have health effects

**Heather** 29:30

Yeah, you absolutely well pulling all nighters in order to deal with a test the next morning or a deadline at work and having that be something that you do once a month not good for you like actually really not good for you and the sleep deficit doesn't get fixed the next time you get a full eight hours of sleep like it takes a few days to to deal with a sleep deficit and there are lingering effects like all of this is true. That said in this particular situation, in part because like they're speaking our language like we we used to backpack in the car as you did a lot more than I did as a kid but we both We both did LX and CRS, depending on where you're going, I mean you could be going a lot of places but you know, it's anywhere from five to seven hour drive. Probably five to like 11 hour drive depending on where you're going. But you know, if you go to the eastern Sierras something in there, there's two of you. It's pretty straight shot. I don't I haven't been with the 395 in a long time, but it's you know, you could you could share like you could each you know, drive for a few hours and let the other ones sleep and then you're actually going to get a little bit of, you know, you're not gonna get a full night's sleep, but make that first day of hiking. A relatively gentle one. And, you know, don't you know, as opposed to spending the night, you know, somewhere in it, you know, in LA is a amazing world class city. But being there as you're prepared to go backpacking, having arrived at the airport late at night, not interesting. I would totally get to the series as soon as possible.

**Bret** 30:53

Yeah, me too. And I like the sleep in the car plan. I think that

**Heather** 30:57

we used to, I mean, we did a couple of cross country trips. When we were transporting cats as well, when we were moving first in Santa Cruz to Michigan and then from Michigan to to Olympia where we just spelled each other we just went straight through. Except we did stop we did take a detour on the way back to see Mount Rushmore.

**Bret** 31:19

This I remember showing we showed cats Yeah, Mount Rushmore which they did not appreciate as much as I was anticipating they would strange Yes, pretty strange. Maybe less patriotic than I had thought

**Heather** 31:31

is long since gone cats Yeah, it seemed patriotic. Did

**Bret** 31:34

they? You know, on casual look, they appeared very patriotic, but at Mount Rushmore ice are not impressed out No. Okay. But yeah, I would I would do the extra backpacking, I'd pay the physiological cost to make a habit of it

**Heather** 31:51

right. Thank you for being here and taking the time. If empathy is rare in humans, could gratitude help level the field and create a better world?

**Bret** 32:02

If empathy is rare?

**Heather** 32:04

I don't think we need the caveat. I don't think we need to figure out if empathy is rare in humans, I don't think it is I think it's facultative. And I think a lot of our environments now, especially the online environment, make it more difficult, but certainly increasing gratitude. Being grateful, being explicitly grateful to people to whom you feel like you owe gratitude. Absolutely, I do think actually prompts an empathic response in other people. Yeah,

**Bret** 32:35

I mean, we there's certainly no shortage of social science data suggesting that various emotional states are contagious wouldn't shock me if gratitude, slotted in there very easily? Yeah. But I would say even just beyond gratitude to people. The thing that I think is very easy to lose sight of, is just how lucky you are to exist. And you know, I can't say that to everybody, people certainly have bad circumstances that I would have a hard time arguing or deserving of gratitude. But for most of us, you know, we live free of fear from predators free of fear from dying of a bacterial infection, which might have threatened our very recent ancestors. You know, starvation is for most of us a very remote threat. And there's an awful lot of room to think about and do what you choose to do, and to find good people and spend time with them. So anyway, there's a lot of room to be just simply grateful for what's available to us. And the problem is that we so quickly equilibrate to what we have available to us that we take it for granted, and don't think about how lucky we are. And it's an easy thing to get over. If you just start, you know, teleport yourself randomly back into history into some random person's position, and then compare what you've got to what they've gotten what you fear to what they fear, and you'll see you're probably in a pretty good position to be more grateful than you, then you would do ordinarily.

**Heather** 34:18

In honor of your cat, a cat related question, why do cats chatter pent up energy mimicking prey to wild cats chatter to other predators chatter? Good question. It's

**Bret** 34:29

such a good question. And of course, we've thought about it this guy has a weird habit of he reliably chatters when somebody opens the silverware drawer and I guess the crazy lights in our kitchen cause the silverware to reliably cast weird shadows on the ceiling or little reflections. And he will chatter at it in that way that cat owners know that their cats will chatter at birds out the window or whatever,

**Heather** 34:54

but he'll do it like 789 times in a row.

**Bret** 34:56

Yeah, he's it's it. At some point, it's going to go away. But it's amazing how reliable he's been. You know, I've heard people argue that it's somehow trying to call prey items. I don't really believe that. My guess is it has something to do with sort of cryptically maybe alerting the parent cat to the presence of something that might be hunted or something like

**Heather** 35:24

that. That's interesting. So just as in the wild adult cats, those species of cats that do per adult cats don't per that the chattering may be a kind of a Peter morphic thing where it's, it's a continued kittenhood vocalization.

**Bret** 35:40

Yeah. And in fact, you know, I don't think this is 100% true, but it is certainly very close to 100% true, that cats don't typically meow with each other either. Right? hiss and stuff, but but they typically they've all the vocalizations, and for those of you who don't own cats, cats have a terrific range of vocalizations, surprising, but they typically do it to us. And so it's very easy not to know that because you're always there.

**Heather** 36:11

growl is the exception. But miaowing empowering now. That's not. Yeah, that's not the right of each other.

**Bret** 36:16

Right. And so it's quite possible that the chattering is another one of these things. It'd be interesting. Well,

**Heather** 36:21

it's not address it's not. The prediction would be that mothers and kittens, mother cat and kitten. kitten cats do engage that way. Right. And we know that the purring certainly goes from kittens to moms. Right? I don't know about the mailing

**Bret** 36:33

that I would be interested to know. I'm not quite ready to predict that they don't chatter to themselves if no one is home. Because it may be that they're not that they sort of consider you home and so that they, they chatter irrespective, but yeah, but I do wonder if it would be reduced if you weren't there. And that would indicate that it was about communicating something to you rather than to the animals or chattering out?

**Heather** 37:02

Yeah. How much effort have you put into investigating conspiracy theories? For instance, 911, JFK, Epstein, etc. and which do you find most compelling?

**Bret** 37:21

That's a tough question. I mean, look, collusion happens the question of conspiracy theories is so fraught that it's just

**Bret** 37:39

it's an even the ones that we know happened one gets dismissed for believing in them. So you know, it's a losing landscape to try to navigate at all so I don't believe in any of them. I don't think conspiracies have ever happened. And yeah, now we

**Heather** 37:55

we've conspiracy happens. And it can't be your first hypothesis, all spinning being equal, but but the idea that it's impossible is just as naive as the idea that it is ubiquitous. You know, it's neither the only explanation for everything, nor never an explanation

**Bret** 38:14

for anything, nor a pure category. Because as as we've definitely not a good category, lots of emergence. There's lots of collusion these things often inhabit the same landscape, and

**Heather** 38:24

very much so yeah. Why don't we know which vaccine has the most breakthrough cases in Israel? It's over 60% vaccinated that have breakthrough infections. 60% facts? I don't know if that framing means 60% of the breakthrough infections are vaccinated or 60% of the vaccinate have breakthrough infections.

**Bret** 38:44

That can't be that can't be true. That can't be we but know that but the former doesn't make any sense, right. So I don't

**Heather** 38:53

know it might have been in Israel with something close to 90% or so of people who are vaccinated if 60% of the breakthrough infections are right now, what

**Bret** 39:02

does that mean? Was there any infections or inherently Yeah, okay, so yeah, I don't know what it means. I will say there is the obvious caution that in 100%, vaccinated population all cases would be breakthrough cases, which doesn't necessarily mean the vaccines are less effective than

**Heather** 39:21

that people are disappointed so made in the podcast that

**Bret** 39:25

we've made. Yeah, of course, it is. So yeah,

**Heather** 39:28

yeah. But why don't we know why don't we know? Where are the data? You know, what? Why don't we have good data? Why don't we have access to good day

**Bret** 39:36

speaking of collusion, one reason we don't have good data is that good data, threaten us to up and the good narratives.

**Heather** 39:46

Alright. I'm looking for Hmm, more questions, sorry. Does the current rate of positive COVID cases amongst the vaccinated Where are you yet? If not, what would you look to see if immune Escape is occurring?

**Bret** 40:13

Of course, you know, I'll say the same thing I said earlier. The the fact of breakthrough cases, the fact that breakthrough cases cannot help but create a de facto gain of function experiments. And because of that, this is an obvious worry. Unfortunately, what one would look for is at least loosely similar to what we are seeing, which is a proliferation of variants as vaccination rates go up. And I think the other thing, I mean, there's a lot, there's lots of different kinds of evidence, for example, you could have vaccination in multiple parts of the world that would result in convergence in the sequence of variants that are separate. And I believe we are seeing this. So what that says is, if you apply the same vaccine, in multiple places, the escaped variants will come to resemble each other because the way you escaped from the immunity created by the vaccines is similar. So anyway, what I would love is for civilization to get serious about answering this question, and to collect information on what these variants are, where they are, first seen what they are successful against. And to do the analysis properly. I don't think it's even all that hard. I just think there's obviously a battle with a huge number of billions, billion billion dollars at stake that is resulting in the analysis being poorly done.

**Heather** 42:07

What are your views on the rare earth hypothesis? Also, you should join forces with Dr. Chris martenson, of peak prosperity, kindred spirit. What the rare earth hypothesis is?

**Bret** 42:20

Yeah, I don't, okay.

**Heather** 42:24

We don't have views on the rare earth hypothesis of the

**Bret** 42:26

earth. That a earth like habitat,

**Heather** 42:29

I have no idea i'm not i'm you can say whatever you're going to say. But I have no idea. Chris martenson?

**Bret** 42:34

Yep. Yeah. fond of Chris martenson. He seems like a good egg. I like his approach. Stay tuned.

**Heather** 42:50

We did that one. Can you explain the evidence for your effective volume model? And do you think there's any safe distance in a house with closed windows? Thank you for your insights. You know, I put together a bunch of the evidence. I think the coining of the term effective volume was was Brett's but I wrote a piece that, hopefully now is going to be out in a few weeks. But a while ago, looking at the evidence for the value of open air and fret and moving air in reducing infections and bad outcomes in hospitals. So I, you know, I'm not going to walk us through it right now. But that'll be out soon. ish. And do you think there's any safe distance in a house with closed windows when I guess it just depends so much on how much viral load a person has? And yeah, but

**Bret** 43:45

the model says that that's not a number, right? But what it says is that, okay, let's take the original variant with the original variant, it took a period of time for a healthy person to cross the threshold where they got sick when confronted with an unhealthy person. So as time goes to zero risk goes to zero, right? So a very sick person presumably takes less time to saturate the air and therefore takes less time for you to cross the threshold. But it's, I think the point is, it's not a distance. If a person has been in a room a small room with no air circulation, exhaling that room is effectively saturated, then the only parameter that matters is how long you spend in the room, breathing that air. To the extent that you open a window in that room, it causes the saturation of the air to drop and increases the amount of time it would take in that room for you to cross that threshold. If you have sufficiently great airflow, then it may be that the equilibrium level in the room is so low that you you know could spend a very long period of time in that room without contracting it. So it's going to be a model with multiple different parameters, you know, it's like, well, how much does this car, you know, burn gasoline per minute? Right? Is it going uphill? Right? Or for people in it? You know, is there anything in the trunk right surface, it's driving a video is one of the cylinders not firing wind, right? So all those things combined suggest there's not going to be a number that is a safe distance, but that there is a model that you can use to basically figure out what the danger of a given scenario is. If a person you're within that room is sick. But again, now we have the question of variance. Right? And it may be that those numbers change radically depending upon what variant a person is sick, whether it may be that they don't change very much. Yep. But at least we don't know.

**Heather** 45:52

Yep. Okay, so I'm gonna read the next one off my phone, because there's, there are a lot of glitches two weeks ago, and some people asked questions that we never saw, here's one, are people more likely to hold on to a paradigm when in a state of fear? I've been trying to explain to myself why so many people are willing to ignore evidence and make flimsy arguments these days? My best guess is the fear of a paradigm breakdown, maybe the cause of their rationality. What are your thoughts?

**Bret** 46:19

I don't think it's quite that simple. But I think there's something to this, I mean, surely there should be a, a kind of evidence that could accumulate that would cause you to abandon a paradigm very quickly, right? And probably we see that right. Like, in a relationship, maybe if a certain kind of evidence accumulates, that the person you're dealing with isn't who you thought they were not behaving the way you thought they were, it might be that you start to see that evidence everywhere, right, you could over apply some new paradigm. But in the case, I think we have a kind of a perfect storm, in this case where people I mean, in fact, we see it in

**Heather** 47:02

Well, that's what Sorry, but I mean, that's what paranoia is right like that, you know that you so you, you come just to use your relationship example, you come out of relationship that was abusive in some way or psycho with abusive in which in which the other person cheated. And you're more likely to see evidence of cheating or suspect people of cheating the next relationship you're in, I think, yeah. So there's you, you have it's a kind of confirmation bias, but not in they usually, usually discussed context.

**Bret** 47:32

Yep, I think I think that's true. I think our current scenario, unfortunately, has people retreating into things that feel comfortable, and it is augmented by the fact that if you are surrounded by people saying the same thing, it feels like Well, okay, we've got to be right. Yeah. And so, you know,

**Heather** 47:54

well, that's precisely why you know, that like this, the better skeptics project, I really think is true, like we all of us could use, you know, people who see value in what they are doing, who's whose goal it is to figure out how they can up their game, right? Like, and, you know, fine, fine, what, what they've said or what they think that isn't, isn't quite right, you know, and the people who don't want such things to happen if the effort is is good faith and honorable and well designed, are those who probably definitely not, are not doing what they claimed to be doing.

**Bret** 48:28

Well. What the IBEW was succeeded in this, right in other words, because it compiled people who were not aligned in their fundamental beliefs, but seemed to be aligned in the objective of figuring out what was true. It was like a safe context in which to, to have ideas battle, and so resurrecting a space where that safety where you know, you can rely on somebody else within whatever group it is to be honorable in the way that they challenge you. And that sort of thing. provides that kind of benefit, unfortunately, let's take the Vax anti Vax false dichotomy. Yeah, right. There are people who are anti Vax, that is to say that across the board, across the board, they don't trust vaccines for whatever reason. And there are people who, I think equally absurdly, feel like hey, if it's a vaccine, it's safe, right? When they gotten through testing Well, no, that's not likely to be true in an environment with regulatory capture. And then there are people who are stuck in some version of the bind that you and I are in, or we want to trust vaccines. And frankly, we want to have regulatory agencies that allow you to tune out so you don't have to be your own protector, right. So you don't have to evaluate it and if it got through the FDA, it's safe, right? It's at least safe enough for me not to have to To think that I'm going to think the FDA. But if the FDA is captured, it's actually not that hard out think the FDA, right? Turns out you can do a lot better than they do because actually they started with the conclusion. So point being, we now see lots of people applying the epithet anti Vax to people who wouldn't have applied two, three years ago because the point was it was a you know, and unyielding position. It was a position against vaccines, rather than a position in some intermediate space. And so,

**Heather** 50:32

well, that is certainly true for some, you know, we've we've met anti vaxxers or actual anti vaxxers. But that word that epithet has been applied to a lot of people who do not have before before the before a year ago, that term has been applied at you know, used to render people untenable in polite conversation against very many people who actually have nuanced careful, scientific, compassionate, humane positions. Agreed.

**Heather** 51:11

When did you guys stop? beating our wives I guess. What did you guys stop sanitizing your groceries? If you did? We were thinking about stopping as of Monday now that we are both vaccinated.

**Bret** 51:24

Oh, my goodness. I mean, it's Yeah, we? Yeah, we were careful about surfaces early on. And then it became pretty clear that surfaces were not a major motor transmission. Yeah. For SARS, COBie, too. And so we stopped and you know, I mean, people, people who've been watching these live streams forever will remember I had a rubric about cotton gloves that I could wear when I was out and then ditch them, put them in the wash. As soon as I got home, basically a sacrificial layer.

**Heather** 51:58

I wore surgical gloves at the market for a couple of weeks. Yeah, a couple weeks, maybe a month or so back, you know, March, march 2020. And I put caught bought a bunch of copper tape, and I put put copper tape on our outside door handles because it's a it's antiviral. We never sanitized our groceries. But we, you know, we left packages in the garage for 24 hours if they came if they weren't, if they if they weren't going to decay. And we and we stopped putting, you know, bags of groceries, you know, for a while that you couldn't use your own bags, right? So we wouldn't, we wouldn't bring bags and put them on the counters, we would only put them on the floor. And

**Bret** 52:39

Yep. And we were more diligent, we almost always buy organic. And so there's less of an urgency from our perspective of washing things. We're not washing pesticide residues off of anything. Of course, some wise person at a farmers market says you could always wash anything that grows lower that a bird flies, but

**Heather** 53:00

those are my favorite vendors up in the Olympia were farmers market. Yeah,

**Bret** 53:03

yep. But anyway, the point is, it quickly became clear that this thing doesn't transmit by fomite very frequently. And so we stopped being vigilant. The irony is that all these other things still do. Right? We've got all these other pathogens. And so I would love for us not to lose track of the fact that we have actually had an arbitrary impact on all sorts of other pathogens, because suddenly we're all now talking pathogen what we should have been from the beginning. Yeah, and the fact is, flu ain't no joke. Right. And to the extent that we can stop being Cavalier, I mean, it is never, it has never ceased to amaze me at how we don't think about the horrible impact. If you have the flu, and you're a little bit careless, and you get somebody sick, and you cost them, you know, however much health right a

**Heather** 53:59

solid week plus a bunch of later,

**Bret** 54:01

right, presumably, they age faster, they suffer intensely for some fraction of a week. Yeah, right. That's a that's a huge disservice. You have done them. And we don't put nearly enough into thinking about how to protect people from that. And you know, suddenly, we're now all conscious about how germs do and don't move around, but we're too focused on the one germ, right, yes, the one germ is pretty frickin important. There are plenty of things that spread by fomites there are plenty of things and so

**Heather** 54:28

like, you know, public bathrooms, like, at some point, it's gonna be ridiculous. You're gonna feel ridiculous being in a mask in a public bathroom, but there's a lot of stuff, you know, public bathroom, we've talked about this before. And yeah, it's not pleasant, but you know, public bathrooms don't have toilet lids. Yeah. And a lot of stuff sprays into the air. And what an easy way to protect yourself just a little bit by masking up in a public bathroom.

**Bret** 54:54

It's true. I'm actually watching with some horror, I mean, on the one hand, it's sort of of reassuring because it's normalcy, but I'm watching the handshake return. And there was a year there, we didn't shake hands. And well, there's that. But to the extent that there was a handshake, it was like a little funny every time you bump somebody by the elbow, on the other hand, are we so sure we want to resurrect the handshake? I'm not.

**Heather** 55:22

Yeah, you know, shake, you know, we do need to be able to touch people. Sure. But frankly, and I guess some things do transmit by fomite. Yeah. For years long before COVID I tend to do you know, an elbow or at least the back of the hand to press elevator buttons, your elevators, knees, closed spaces, you just don't know who has done what do you know? Right. But their fingers were and then. And I was actually in a, this is months ago now, but in some medical something. And I got an elevator a couple of people going in with me. So it couldn't have been that long ago, because for a while, it was like only one person in elevator at a time, right? And it was a nurse and it turns out her sister and I, and I asked them what floor and I pressed it with my elbow. And they both just smiled big at me under their masks like a towel. And the sister of the nurse said, My sister has been doing that since she was little. And she always knew she was going to be a nurse. Like Yeah, like that is going to transmit some stuff. If someone sick just touch that. And you touch that you might get sick. As it turns out, you're not likely to get sick with COVID doing that.

**Bret** 56:30

Right? possible. But you're right. But how many other things are we transmitting this way? And frankly, I think handshakes are suspect and not necessary. Frankly, I think a hug is less dangerous than handshake. Well, that's, well, I like me to look handshake, you know, somebody has touched the button, right? Or they've gotten sick, and they've wiped their nose, and then you shake their hand and then you wipe your eye. And that's that. Right. And the point is, that's a pretty direct route for pathogens to figure out. Yeah. So anyway, it's not that, you know, it's not that I don't think the handshake was doing something I know that it was, I mean, evolutionarily speaking, you know, it may be interchangeable with a bow. But it's doing something and we can't just you know, Chesterton's handshake, you can't just get rid of it. But we could pay much closer attention, we are living in much greater density than we were. And you know, there's a lot there's a big cost to be paid for not being careful about this stuff.

**Heather** 57:26

Indeed. These questions do not necessarily come in in an order that I can track. So I see on Brian's topic of statens, so I don't know I didn't see Brian's question about statens. Nor do I know who Brian is. But on Brian's topic of statens, I feel permanent brain fog and loss of 20 IQ points on simvastatin. I know very little about statens. But I, but I have been background sort of vaguely concerned about them. Since I started hearing about them, there's something that feels wrong.

**Bret** 58:08

I got nothing. All I would say is, there's a welcome to complex systems phenomenon where, you know, and this fits very well with what you read last week about the Victorians. Yeah, and the idea that there's a lot of the stuff where we see a concentrated benefit of something, and we're not calculating that it must come with costs, and therefore the idea that, you know, we've gotten all of these benefits from medicine really needs to be compared against, you know, it needs to be calibrated, and, you know, trade off. Well, you know, think Alexander, when I started doing my trade off stuff I started looking at pharmaceuticals, was like, you know, this, this matches exactly what he had thought that all of these things have these costs, and that we really ought to point a very skeptical eye and those who are eager to prescribe stuff to us. And I also think, you know, every time we get sick, and we get better, and we have the sense of like, Oh, that was bad. It's like, no, not only was that bad, but you just borrowed from your future. Yeah. And Yep. So anyway, that's not very specific on statens. But wouldn't surprise me if you were detecting something real? Yeah.

**Heather** 59:20

We're asked a couple of times, if which vaccine we would prefer. So I'm not sure this is a question we want to want to go down the road. One thing we have said is we're hopeful we're hoping for a traditional vaccine. We would be enthusiastic about a traditional vaccine. Early, early on, it seemed like the adenovirus vector DNA vaccines might be better because they have one less piece of totally novel technology involved in them. But of course, there's Um, there's some safety signal with j&j and AstraZeneca. That's not great. So I, I think I think I would still go there. But I, you know, I'm really hoping for, there are a few there are a few of these avenues with traditional vaccines that seem to be in development that I would love, I would love to see come to market,

**Bret** 1:00:21

I would love to see a traditional vaccine. On the other hand, I would just point out a, we're doing a crappy job of collecting data on the current vaccines, and there is a way in which the current vaccines are largely duplicates of each other because they are all predicated on exactly the same underlying theory. A traditional vaccine would be a welcome development from my perspective, but at the point that it shows up, we will know nothing about its long term impacts. So this is going to be a constant thing. And totally,

**Heather** 1:00:57

of course, yeah. Do you believe that psychoactive zz are perhaps essential for healthy human experience? most cultures, have them. Most pre industrial cultures have some form of psycho actives. As for whether or not every individual needs to engage? I wouldn't, I wouldn't go that far. But in some cultures, all individuals are expected to engage at some point. And in some cultures, it's it's only for, you know, particular ceremonies, like coming of age, and then it's particular categories of people like shamans. So you know, given the plethora of ways that different cultures have basically brought, brought psychoactive substances and the agendas, what have you into the human experience? I would say they are valuable. They are ubiquitous at the cultural level, but not necessarily ubiquitous at the individual level.

**Bret** 1:01:55

Yeah, I would agree with that. I would also say there are other routes there. Yeah. So it, you know, yes, it's cool that you have a mushroom that can trigger access in this way. You know, I will repeat what I always say, which is, it shouldn't be recreational, which doesn't mean you shouldn't have fun. But it means it's serious business, and you should treat it that way. But there are other routes there, as you know, wasn't the section that you were reading from the book, there are natural ways in which you end up there, whether you like it or not, we just don't tend to think of them in that way. Yep. And, you know, the, the entheogens that you take are a hack. The endogenous experiences that work this way, are liable to be regulated, to your benefit on average. And, you know, somewhere in there, yes, yes, the mechanisms are probably necessary to every single person, whether you need to do something special to access them, probably not for many people, indeed.

**Heather** 1:03:01

hizack What time are we at?

1:03:03

Your

**Heather** 1:03:05

All right, let's do a couple more. PSA for my state references new Public Health England research saying that delta is 40% more transmissible outdoors than alpha? What are your thoughts? I have not heard this, I would love for you to send that PSA to Dark Horse moderator@gmail.com. So that we can take a look and see if we can find the evidence that they're basing that on. That's something we've been, you know, praying against and predicting might happen since the beginning of this. And I really hope it's not true,

**Bret** 1:03:36

I would I would say it even more strongly, we have learned that it might happen. We have cautioned that the outdoor environment appears to be a loophole in the transmission logic and that we should act to protect it. So we have argued that even though there's no evidence for transmission outdoors, or almost no evidence, that caution when you are close together, Outdoors is warranted. And so to the extent that we have a new variant that appears not to abide by that same rule, if that is in fact what we have, that's because we screwed up because we didn't we didn't treat this like an evolutionary environment from the get go. Yeah.

**Heather** 1:04:16

bnh Good luck with your new book, any book recommendations for our age, you know, a few, but I will say I'm going to I'm going to punt slightly and say that we've actually got at the end of the book of ours that's coming out for each chapter one or two, or even one case maybe three books that we recommend that explore that topic that we that we respect a lot. In fact, the one for the sleep chapter. There's only one for the sleep chapter and I happen to have it here. So this book, why we sleep unlocking the power of sleeping dreams by Matthew Walker. Oh, well, yeah, okay. You got me here. I can't even tell. Here we go. Why we sleep, unlocking the power of sleep and dreams. It's good. So that's the one that we recommend. So Let's see what the sleep chapter and there are several for across the whole book. Next question is also really just a comment. so grateful to you for both taking COVID. Seriously and seeing the lies I do also. Thank you. Yeah. Sometimes I have stayed up 24 to 36 hours then slept 12 to 16 hours, I felt great is this bad? You know, it's there. There are some people who are just different with regard to sleep, right. And I think we probably have all known or known of people who really actually seem to function totally fine on almost no sleep. And I've never run into an analysis of why such people should exist, or what exactly is going on. And there are a lot of people who think there are those people that aren't and their loved ones can attest to that. And they're, you know, they're their co workers and, and professors and peers, and all this kind of test of that. But the idea that you might be someone for whom, basically going in longer bouts longer sleep wake cycle might might work. That's not so surprising that there would be some people like that out there.

**Bret** 1:06:19

Yeah, and I would say, a lot, probably you can deduce from how you did it. Right? Yeah. If you loaded yourself up on coffee or something else to stay awake, then probably, you're borrowing from something. On the other hand, if this is a natural cycle for you? Maybe not. Yeah, I became aware of the light though, because light is it functions a lot like a stimulant, and therefore can disrupt a pattern. Yeah. Oh,

**Heather** 1:06:51

I'm seeing Brian's question now. Which we aren't able to answer but any chance of briefly discussing statens and touching on cholesterol? Thank you. So yeah, we don't we don't know much. But we already did that a little bit. Can ivermectin potentially cross the blood brain barrier? Perhaps with lack of sleep and or COVID?

**Bret** 1:07:11

I think we know a little bit about this. Yeah, say I would like some leeway because didn't see your question coming and didn't look it up. I think ivermectin minimally crosses the blood brain barrier in a healthy person,

**Heather** 1:07:25

even absent other.

**Bret** 1:07:28

minimally meaning most of it doesn't. But it's not completely absent.

**Heather** 1:07:32

But it doesn't require that there was a parasite that already weakened the blood brain barrier link like COVID that already wait word

**Bret** 1:07:37

that will increase the course miscibility. But

**Heather** 1:07:40

you're saying that you think there is some evidence that can minimally cross liberal barrier even absent any iron,

**Bret** 1:07:45

if I recall that low concentrations were seen beyond the blood brain barrier, okay. And COVID COVID and spike protein alone seem to shred the blood brain barrier, which presumably opens the brain to the central nervous system, too many things take that would otherwise not cross and this is one of my concerns about it. Actually, it's one of the things that I thought Eric Topol got wrong in SAM Harris's podcast was that it's not inherently the spike protein that ends up in the brain that is so troubling it is that if the spike protein is shredding the blood brain barrier, then one of the protections for the brain is reduced. And in a modern environment where you're exposed to who knows what, you know, off gassing of furniture, or whatever it is, that ends up in your blood, not having the blood brain barrier intact, exposes you to hazards that we can't even calculate, right can't keep track of all the things that your brain is protected from, but by that barrier, and to the extent that it is shredded, that you are at increased danger. Now I do know, I talked to Dr. Corey about this, the blood brain barrier does self repair. So that's good news. To the extent you can stop damage in a healthy person. Yeah. So you know, it's a temporary problem, not a permanent one, which is really good. Okay.

**Heather** 1:09:08

Final question. Oh, actually, the previous one or two more. Could you comment on doctors David Martin and Richard Fleming and what they have said they are calling the virus in the vaccine, a bio weapon that was manmade, they've got patents as proof at Fleming method.com. So I don't actually know I haven't seen Fleming at all. I've seen some of the stuff going around, that Martin has talked about. And there has been there's been some careful what looks like responsible pushback against enough of the claims in some of some of what he's making that while Some of it may well be accurate, it's really not clear what the overall message should be. Yeah, gave

**Bret** 1:09:53

me a I did watch Martin's video yeah, and it but Fleming to me. I don't know Fleming. I'm wondering if Fleming is the other. So it was an unknown known format to me in which Martin is talking and then it gets translated into German for and it's I don't know. So anyway, whatever it is. I had the sense that no doubt, many of the things that were being reported are true in the sense that there are patents. I don't know what the implication of those patents are. And it was not obvious to me from that presentation, that they are what was being claimed. Yeah, so I guess there

**Heather** 1:10:33

have been at least some, some holes poked in some of the some of the connections made,

**Bret** 1:10:40

right. And so the thing is, I don't know that there's anything alarming in these patents, because for one thing, what I kept noticing, and again and again, was the claim was made, there's a patent, it is very early, but then it wasn't clear what the patent was on. And what we do know is that people were working on coronaviruses. And so I don't know how many patents get filed. I don't know how close these matches are. And therefore I don't know that there's any implication that

**Heather** 1:11:09

it was hard, it's hard to calibrate a lot of the claims absent knowing things like background, right, of patents back like,

**Bret** 1:11:14

right, and how close to sequences, you know, if you've got a sequence that is identical, and it's, you know, patented long before it's claimed to be discovered, okay, that's obviously a red flag of something. On the other hand, that's material is not presented in a way that I could at least glean it. Yeah. So I'm, I'm concerned that the implications of that presentation are not what people are claiming. Yeah, I agree.

**Heather** 1:11:37

Final question. Becoming multiplanetary solves for many extinction scenarios. Doesn't this make Elan musk the most ethical human alive today?

**Bret** 1:11:50

No, I would not. I'm not I'm cautiously a fan of Ilan, in part, because he seems to be doing his own work and concluding that investments need to be made in things and then, you know, he's got a bias toward action that I think I applaud. I don't, you know, necessarily trust his judgment on all of these things. And you know, there's a question, if it is true, that immunity from extinction is greatly enhanced by being multiplanetary. Then wood, a dweller of the village in 1433, who was experimenting on getting to other planets have been the most ethical person on earth, would they have been wasting their time? Right. So my point is that the immunity that we get from going other planets, we're just getting out of formwork. Right? They're slacking Yes. Right? So my point is, I'm not saying that Ilan is too early, maybe he's not, maybe he's at exactly the right moment, at which point these investments make sense. Or maybe he is too early. And the point is, he's not that much ahead of the guy in 1430, whatever, making the same point six is 36. You know, so you can't do the calculation that way, right? Because if it's true now, it was true in 1436. And that would not have made the person obsessed with it in 1436. But you

**Heather** 1:13:27

don't you don't even totally believe this, right. Like, I get your point. And it's an important one, but there are moments before which there was any possibility of movement on a certain thing. And then there is a sometimes vast period of time during which the proper pump the pump is primed, you know, there's there's no ability to receive information. And with this, there's also the technological thing. So it's not just, you know, our is the populace ready to hear Darwin, right? But there's actually a, you know, do we do we have enough syncretism to like, bring together all the things that we need, and are we advanced enough in various technological fields?

**Bret** 1:14:07

No, I absolutely do believe what I'm saying. But I might not be saying what you're hearing, because what I'm saying is what I heard is a logical syllogism, right? Is he given given given a and given B? You know, okay,

**Heather** 1:14:23

is he is he there? Is he the most ethical person on the planet today?

**Bret** 1:14:27

Right? Not my point is not that's not

**Heather** 1:14:29

that's insufficient premise, right?

**Bret** 1:14:31

Yeah, it is insufficient to reach that conclusion. Okay. But, you know, again, I'm cautiously a fan, right to have somebody that wealthy and powerful also be imaginative and courageous and on coordinated

**Heather** 1:14:58

you ride a bike or

**Bret** 1:15:00

I know you're wonderfully coordinated. What I mean is with others, right? the independence of the perspective is refreshing. I know what you mean. You know what I mean?

**Heather** 1:15:12

Everyone generous will understand what you mean.

**Bret** 1:15:15

It's maybe not as big a group as.

**Heather** 1:15:20

Yeah, yeah. But the ungenerous are not necessarily the musk lovers. So

**Bret** 1:15:26

Right, right. Yeah. Right. Have we reached the end? I think we have. Okay.

**Heather** 1:15:35

Well, we're gonna we're gonna go outside. Let's work. Yeah, please consider joining our Patreon tomorrow at 11am Pacific is our two hour private q&a for the month. The questions have already been asked but we'll be answering them having some fun doing so and B and we'll be interacting with the chat as well. And good stored at Dark Horse podcast.org to pick up some Goliath shirts and other stuff, email questions to Darkhorse moderator@gmail.com Subscribe to whatever channel you're watching this on, and then the Odyssey or YouTube equivalent and also the Dark Horse podcast clips, channels on on both YouTube and honestly to help us out with various algorithms and consider liking and sharing the video. And I'm sure I forgot something there. But be good to those you love and eat good food. Think outside

**Bret** 1:16:33

for a while, everyone