

Taking Alcohol in a Natural Direction – Bill Moses with Dave Asprey – #843

Announcer:

Bulletproof Radio, a state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey. Today we're going to talk about alcohol, which is something a lot of people like to talk about and a lot of people like to drink. We have, as usual, the live studio audience from The Upgrade Collective, which is my membership and mentorship group where I am teaching a lot of people every single week, my books and everything. It's a vibrant community where I think we've answered every question anyone's ever asked in our private groups.

So if you really want to go deep with me personally, and with my team on biohacking and learning all of the stuff that I've ever written and talked about in a structured format with the team, go to ourupgradecollective.com and come hang out with us. It's so much fun. It's been inspiring for me this year, and that's why I invited members of The Upgrade Collective to be in this live audience, so you get early access to these and you get to ask questions of our guests at the end of every show, the live studio audience. Don't know what they're going to say.

Now, I mentioned alcohol. Our guest today is Bill Moses who's the founder of Flying Embers, which is an innovation lab that's looking at making alcohol better for you. We're talking about hard kombucha, hard seltzer, and fermented botanical brews. Going back to the very old days of alcohol, where if you were in, say, England 400 years ago, you wouldn't drink water because parasites would kill you. So you drink beer, and you might get some B vitamins that way as well.

And so, I'm not ever going to be one to tell you alcohol is good for you. I know that the alcohol industry has been really trying for years to falsify studies to say, "Oh, just get drunk every night and you'll live longer." I'm like, "Guys, didn't you learn from big tobacco? It doesn't work like that." That said, most people listening to this right now do drink on occasion, and I've written for years, how do you do harm reduction? But part of it is, what do you drink? What do you choose to drink? So I found a guy.

Bill here helped to build the first certified organic winery in Southern California called Casa Barranca. He was former chairman and co-founder of KeVita probiotic drink, which is a very well-known probiotic beverage that Pepsi bought. It's a small hippy California brand that sold in 20,000 stores. He's also a biohacker health guy. Bill, welcome to the show.

Bill Moses:

Thanks, Dave. Good to be here.

Dave Asprey:

How's that for an info, or for an intro, biohacker health guy?

Bill Moses:

Well, that could cause some controversy amongst of my peer group, but I think I can go with it.

Dave Asprey:

You started a probiotic beverage company. I'm surprised you even shower. I mean, do you shower?

Bill Moses:

I do. Well, at least once a week. At least once a week.

Dave Asprey:

There we go.

Bill Moses:

But yeah. No. I think, look, coming from New York to California some 20 some years ago and getting involved in the alternative health and living lifestyle here in Ojai, California, I've got a new way in, a new view in on how to live and how to really take care of yourself. Out of that journey, I found myself into fermenting organic grapes and making sulfate-free wine and writing white papers about what's in the wine that's not on your label, and getting really into testing and cultivating a culture and product to make sure that it is what we think it is and it's the best it could be.

Dave Asprey:

Longstanding winery background, longstanding fermentation background, which is different because, yeah, you can ferment wine, but there's a big difference between organic stuff and probiotics. This is a true story. I interviewed at Gallo Winery in Modesto, California for my first job out of college, and to work in the ID department. They said, "We're not going to hire you because we know that as soon as we train you, you'll take the training and then go get a job that pays more elsewhere."

But I almost went to work making million gallon stainless steel vats of wine and realize it's such a far cry from what you would do in an organic winery. It's almost just a different product. Not to pick on Gallo. I mean, it's wine, but there's additives and stuff. You took all that history, all that background, both from non-alcoholic and alcoholic, and right in the middle of the 2017 fires across California, you started your current Flying Embers company. Did the name Flying Embers come from the fire or is that just a coincidence?

Bill Moses:

Yeah. Yeah. No, it actually did.

Dave Asprey:

Did the name Flying Embers come from the fire or is that just a coincidence?

Bill Moses:

Yeah. Yeah. No, it actually did. When we were sitting here fighting the fire, dealing with what was happening at the time, the largest fire in the country, when the first responders were on the property and spending time, energy, day after day with us, I really got a deeper view in and a real appreciation for what they're doing. When I was watching the embers literally speckle the hillside, that amazing almost transformational experience, I just went, "Wow, flying embers."

If we could emulate that in a "better-for-you" alcohol product, then we might really do something that in whole is a little bit more desirable than what is in the marketplace. That's where Flying Embers came from.

Dave Asprey:

The idea that, "All right, I'm going to have something alcoholic tonight and I can get the bright blue or green artificial flavor, sugar, hard stuff, or I can get a mass market beer or whatever. I could buy some wine that does or doesn't have stuff in it," those are generally what people think about... Of course, there's artisanal whiskey and things like that, but not a lot of people think about, "I'm going to go get a hard kombucha because I'm tough." I mean, do people even know this stuff exists?

Bill Moses:

Yeah, it's really interesting. It's a category that's really growing and taking off. The non-al kombucha space is now trending around a billion dollars with a 20% growth. And so, a lot of the non-al kombucha drinkers, where they have had the controversy of, is there alcohol on it? Is there no alcohol in it? And spending years trying to keep the alcohol out of it, the translation into a hard kombucha I think is readily available to a lot of non-al kombucha drinkers and growing. So yeah, it's actually a category that's growing pretty rapidly.

Dave Asprey:

There was a time probably about five years ago where a major kombucha brand got taken off the shelves and a bunch of retailers, because this is the weirdest thing. When stuff ferments, some small amount of alcohol forms, and to get drunk, you'd have to drink like 18 of those kombuchas, which would make you throw up. You couldn't drink 18 kombuchas, at least no one I know could. But it was legally absurd. So you're just like, "Okay, fine. Alcohol is going to form during kombucha. So let's just own that and make it into a beverage."

I like that. It's rolling with the way mother nature works versus a fantasy that mother nature is going to do things exactly according to a label when there's always variants. You have established the category and you've got people doing this, do people go to bars, I guess that's a loaded question [inaudible 00:07:58], but when people go to bars, again, or restaurants, is this the sort of thing that you see that we're going to be able to purchase alongside of wine or something?

Bill Moses:

Yeah, absolutely. I mean, right now, across let's just say the coast, coastal regions, whether it's in the East Coast where prominently on sale at Harris Teeter, Publix, Wegmans, Total Wine, we're seeing a on-premise draft program evolving. Out here in Southern California, you go to any pub or bar or tavern or even a restaurant and you're seeing almost everywhere that's trending, a hard kombucha being offered. It's happening. Yeah. Yeah.

Dave Asprey:

Well, if we do end up getting a liquor license in Victoria, BC, I just opened my farm-to-table restaurant called Upgrade Café about two weeks ago. It's based on the Bulletproof Café, which is soon to be renamed the Upgrade Café down in Santa Monica, I would love to be able to do that. It'd be really interesting to have that, but I don't have a liquor license yet because we're serving super healthy food.

But look, if people want to have a drink with dinner, I'm not going to stop them. I'm just going to say, "Do it better." I think this is a way to do it. What about the weird stuff that grows in kombucha? I wrote an article on my blog a few years ago saying, "Well, there's weird stuff that's never been characterized growing in kombucha." Have you done some of the science to actually tell us what all is in there?

Bill Moses:

Yeah, sure. We have identified specific strains of bacteria. We've got a library of them. You lyophilize them so that you can pull them out of storage and use them. We manage against drift. But ultimately, yeah, we're doing a PCQR DNA test. It's called scorpion test. You can get a view in on the actual DNA of what it is. Inevitably, SCOBYs get passed around. They ultimately drift. You ultimately get all sorts of lactose and moles, and funguses, and everything in a SCOBY.

It is not necessarily the cleanest, purest form of a culture because of the way it's handled. To some, that's romantic, that's beautiful. That's au naturale. We take a different view in, and our view in is that we really want to know what's in there. We really want to test it. We really want to continue to maintain the integrity of the bacteria and the yeast that is fully clean and tested for mycotoxins and all sorts of impurities. So yeah, we do manage that.

Dave Asprey:

When I was a raw vegan, I definitely had my SCOBY growing, until one day I was growing some green and blue stuff on top. I'm like, "What do you do with the SCOBY when it's gone bad?" Do I have to give it a gravestone and bury... I felt like I was bearing an organ. It was like poke it with a stick. It was pretty horrifying. I guess you don't have that problem because you're handling yours better than I handled mine.

Bill Moses:

I think when you commercialize it, you have to maintain some level of integrity of quality or you end up with problems that many find in this live, organic cultured business, whether it's food or beverages. You've got to stay on top of that stuff. Yeah.

Dave Asprey:

Okay. So you have a little bit more process. I've been concerned about home brewing of kombucha. I mean, I've done it so I have concerns. Doesn't mean I don't do stuff that I have concerns about, risk, reward. You're not probably going to die from drinking your own kombucha. So the risk is low. But I definitely know that sometimes I've got vinegar and sometimes I've got other things. We grew some with the kids a while ago as a project. But I don't think it's very sustainable to do it at home because you have to actually have a carefully controlled environment.

So you've solved all that. You've got something that's hard. Are there still live bacteria or is there so much alcohol that it killed all the bacteria?

Bill Moses:

No, no, no. We have live acetobacter, live bacillus coagulans, Saccharomyces boulardii, and yeast that lives till-

Dave Asprey:

A really good one.

Bill Moses:

... end of shelf life. We find a way, our IP, our I think trade secret, is how do you make a kombucha, our kombucha with the right amount of alcohol that isn't pasteurized, that ultimately can maintain integrity on the shelf with great organoleptics without any bottle explosions, or [inaudible 00:12:33], or spoilage. I think that's our unique approach to this category that I think differentiates us.

Dave Asprey:

Okay. *Saccharomyces boulardii* is something that a lot of people don't know about. It's a species of yeast that eats bad yeast. It eats candida and it's used to reduce auto-immunity and it's something that I've used in a home fermentation. You can actually add it to the ferment, or you can take it orally. It's something that helps a lot of people with leaky gut. So it's cool. All right, I could have had a shot at something or hard kombucha that actually had probiotics. We've had a couple of interviews about *Bacillus coagulans*, which I think... Isn't that a spore former, if I am-

Bill Moses:

Yeah. It's a spore former. That really maintains its integrity in an aqueous format. Most, let's say, beneficial bacteria is when you put it in water. It doesn't have much shelf life and isn't sustainable. The other thing that's great about the *Bacillus coagulans* is that it really does help get the product fully dry. A lot of the research is that it's not only a beneficial bacteria, it's not only probiotic, but it really helps in the fermentation process.

All of our beverages, all of our drinks have zero residual sugar. So it really plays to that important part of health, I think, which is sugar is not our friend. It's not my friend.

Dave Asprey:

This is interesting. Some of the major brands I've seen out there actually have meaningful eight, 10 grams of sugar, oh, in half a bottle. And you're like, "Well, this is getting to be in the direction of soda," and you don't necessarily want that. So you're saying, "All right. Zero sugar." Now you've got a trade-off. How much alcohol is in an average bottle?

Bill Moses:

Well, we have two lines. We have one that's about four and a half percent alcohol and one that's about, let's say, six and a half percent to 7% alcohol. So we have two lines, so yeah.

Dave Asprey:

Let's assume you're drinking a four and a half percent. Now you end up doing this Bulletproof diet math. Just to be clear, kombucha is on the suspect list of foods. Suspect means it might be okay, it might be innocent, it might be guilty for you. But now you're saying, "Okay, I got zero sugar," which is a benefit. But then you've got alcohol, and alcohol metabolizes before sugar and before ketones in the body. But not a lot of alcohol. It's only four and a half percent. Would I want, four and a half percent alcohol, versus a few grams of sugar, or 10 grams of sugar?

It depends on how alcohol affects my biology. If that much alcohol ruins my sleep, and I see it in my sleep score, sorry, I need to cancel the alcohol out with some glutathione and some other stuff. Or maybe it's just not going to work for me. But the next guy could sit down and be like, "Oh, are you kidding me? I can handle the alcohol just fine, but the sugar would mess me up." So you've got to do the math.

Bill Moses:

That's right. That's right. And there's zero carbs as well in our drinks. So it does-

Dave Asprey:

Zero carbs as well. So it's very keto compliant then.

Bill Moses:

Right. Right. Totally.

Dave Asprey:

Unlike most kombucha that's out there.

Bill Moses:

Or... Yeah.

Dave Asprey:

Or?

Bill Moses:

Yeah, well, and yeah, most kombuchas or any beer, right. For sure. For sure.

Dave Asprey:

Okay. So it's definitely more in that Bulletproof compliance side of things, except it has alcohol, which isn't good for you. But it's a little bit of alcohol.

Bill Moses:

Right. Right.

Dave Asprey:

It's a social situation. You're probably not going to get drunk off the four and a half percent, and you're going to have to drink a six pack of the six and a half percent to really have much of an effect. How many people drink a six pack of Flying Embers at one sitting?

Bill Moses:

Listen, I'm not recommending drinking a six pack. But look, I mean, seriously, anybody that's into health and wellness, that's looking for a libation of sorts, something to make them more relaxed, mitigate stress, whatever it might be, help with their cortisone if it's late at night, I don't know. I mean, one or two of these, that I've experienced, someone that really has issues with inflammation, is not impactful as it relates to any sort of adverse effect that normally you get with drinking a couple of beers, a couple of cocktails, et cetera.

So there really is a different experience, a higher vibrational phenomenon that goes on with this live fermented bacteria and healthy yeast that... And the adaptogens that we have in there, that are much more bio-available because of the dual process of extraction, the dual extraction process with the alcohol, the ethanol. You really do get the most amount of polyphenols, et cetera. So at the end of the day, we all know that alcohol can really be impactful to one's health. For those of us that like to have a drink, something that's healthy, I think this is the best way in. That's why I took 10 years to cultivate this.

Dave Asprey:

I wouldn't have had you on the show if I wasn't inspired directionally by what you just said there. I've got one more question though. What about histamine? I have had some brands of kombucha where I'll drink it and, man, I'm puffing up after this thing. Are you controlling for that? Is that in there?

Bill Moses:

Yeah sure. And we test. We do fusel alcohol testing as well to make sure there's no methanol and other of toxic alcohols, but absolutely. The bacteria and the yeast and the process will all yield histamines or no histamines. Everything that goes into it is quantified and qualified for its histamine production. And so, we're histamine free, 100%.

Dave Asprey:

That matters a lot. The reason I'm asking these questions is The Upgrade Collective members are like, "Dave, you've warned us about kombucha for years." But the reason I warn is that there's such a high variance across it. You never know what you're getting.

Bill Moses:

Totally. Totally.

Dave Asprey:

In your case, you're like, "Well, I have a little bit of a CV in kombucha, a little bit of KeVita, and a little bit of organic wine." So you're a believable source here, at least, on my standard.

Bill Moses:

Thank you.

Dave Asprey:

And you've spent some time on it. That answer, "Okay, you're not going to get histamine response from it unless you're allergic to something else that's in it." You're basically fermenting sugar and green tea as the basic of it.

Bill Moses:

That's correct, and black tea. And we don't use honey. We don't use honey for a reason because honey could harbor, when diluted down mycotoxins. And so, we consciously don't go that route. It's a traditional beverage that we try to bring to modern age in a way that improves and could be of value. So yeah, for sure.

Dave Asprey:

I actually like it that you don't use honey. There are recipes that use honey, I forget the name for it. It's a slightly different name than kombucha. You would know what it is.

Bill Moses:

Yeah. Jun. There is [crosstalk 00:19:22]-

Dave Asprey:

Yeah, jun. Thank you.

Bill Moses:

Jun. Yeah. Yeah.

Dave Asprey:

But the problem is honey has anti-microbial properties. So you mix it in, you don't know what's going to happen, because it depends on how much propolis and which pollen and all that. Look, you're fermenting the sugar. It's a fuel source. Is it organic sugar or is this-

Bill Moses:

Oh yeah. Yeah. All ingredients are 100%-

Dave Asprey:

All organic. Okay.

Bill Moses:

... certified organic. Yeah.

Dave Asprey:

This is a high-end thing. Okay. Now, our Upgrade Collective members are hitting me on the chat here and they're saying, "Tell us about the adaptogens and all that." I'm going to define adaptogen for listeners who don't know. These are herbs that you can use. They're originally used back in China and Russia, and they light a turn on stress response and turn off stress response more effectively and efficiently. So you don't stay stressed for a long period of time. I take adaptogens every day. What adaptogens did you add into this?

Bill Moses:

Yeah. This is part of the fermentation, the primary fermentation process. We have turmeric, we have ginseng, and we have turmeric, ginseng. We use astragalus in some of our local, and ginger. These are the adaptogens that we ferment in the SCOBY. Yeah.

Dave Asprey:

Okay. That's cool. Those are three very well-known adaptogens. Interestingly, astragalus, when you have huge amounts of it, more than you're going to get even if you were to eat a pound of it, is one of the very advanced telomere-lengthening supplements. It takes them to like 45 pounds of astragalus. So it's got some interesting powers. But at lower doses, astragalus is just a well-known adaptogen.

Bill Moses:

Yeah. What's interesting about that is that the FDA and the TTB are super restrictive with regard to what you could put in an alcohol beverage. It's really interesting, like when you try and make it better. The astragalus that we could only serve within our state, which is California... Soon as you ship it across state lines, the FDA has an issue because of, it's not FDA GRAS. It's got to be FDA GRAS. There was no astragalus out that I'm aware of, that is FDA GRAS. They're self GRAS, but not FDA GRAS, generally regarded as safe.

So one of the projects that we're looking at is some of these botanicals and adaptogens that aren't FDA GRAS, to actually go about and applying for FDA GRAS, so that we could put them in and ship them across state lines.

Dave Asprey:

This is something that a lot of listeners probably don't know much about, but the generally regarded as safe standard is so floppy and subject to manipulation. How do you know some of these generally regarded? Well, normally you could ask around, and anyone listening to this show with a bit of a background, "But, well, of course, astragalus is safe. It's been used for a long time. There's tons of studies. What's the issue? It's thousands of years." But then a regulatory authority would be like, "Well, we don't regard it, so therefore it's not generally."

Then you go through this weird legal discussion that could take years to try and convince bureaucrats that something that is generally regarded as safe is actually generally regarded as safe. In the meantime, if you sell it, you get in trouble. I've just seen so many powerful things not be available to consumers because of that weird roadblock. I didn't realize astragalus was even not on the GRAS list, given that it's been a supplement for so long.

Bill Moses:

Yeah. Yeah. Same thing. It's really interesting. We had the same issue with ginseng, and ginseng's been used forever. We were prohibited in a partnership with another company, New Belgium, by Whole Foods to say, "You can't use ginseng." Then we had to go through a long process to ultimately prove that ginseng does have approval with FDA, even though it's not FDA GRAS. And so, it's a bureaucratic mess when it comes down to some of these great ingredients that aren't necessarily approved yet for use.

Dave Asprey:

It's especially odd because things that you can buy in a capsule, and totally just buy off the shelf, almost no standards, as soon as you want to add it to mayonnaise or to kombucha, all of a sudden it becomes a food and then you can't do that. I would just say, if you're wondering why your food is expensive, this is one of the reasons, the level of garbage that food companies go through that adds zero safety, zero health, zero value, lots of attorneys, lots of consultants, lots of meetings, and drives up the price of everything.

This is going on in the background and I don't think food guys like you and me, or beverage guys, we don't disclose this publicly very much. But you're fighting the good fight to say, "We have a right to have ginseng in our tea if we want to." But why do we have to fight over that? Aren't there bigger things you could fight over?

Bill Moses:

It's amazing. It's amazing. Yeah. We use reishi. Our beers are bittered with reishi, and lion's mane, and we use ashwagandha, whether they're fruit body extractions, beta glucans. We're trying to use the best that's available out there to really, let's just say, offset some of the not so great properties for you in alcohol. So at the end of the day, you put it on a scale. I know that I want to have a little bit of fun. I want to have a drink. I want to relax, whatever it might be. And we know that the alcohol could cause some inflammation.

Well, is there an offset? Is there something that may offset some of it? That's the way I rationalize this as better-for-you alcohol.

Dave Asprey:

I think you actually have a pretty good case for that. I'm still not going to say alcohol's good for you. Look, cheesecake isn't necessarily good for you, but most people on the call have had some cheesecake in the last couple of years. Look, it's okay. Just have a cheesecake that's not made out of weird crap, that's at least made out of real cheese and real cake. So it's directionally better than you would have done before, is what you want to do.

I've got a bit more of a nerd question for you here. Some of the supplement brands that I've used in the past, and probably still use today, they'll actually use usually a yeast fermentation with, say, a B vitamin or mineral, that you see these chelated minerals chelated with yeast to increase bio-availability. When you are fermenting adaptogens like this, do you have any data or science that says they're more or less bioavailable?

Bill Moses:

Well, there is science to say that ethanol does do a better fat extraction on curcumin. Curcumin is, I mean, you could do a water... Like tea, soak it in water, but there is science that says that the ethanol, when you ferment it, makes the curcumin much more bit bioavailable. So the science is out there. There is substantiation documents that show an ethanol-based extraction in fact gives you more bioavailably, pulls out more of the better-for-you botanical that your body can actually use. We don't do the testing ourselves, but there's a well-known science out there that substantiates that fact.

Dave Asprey:

Okay. I definitely see that in the case of medicinal mushrooms, not the kinds that make you trip, but just the kinds that help the inflammation and cognitive function and all. Alcohol and hot water extraction totally works. But a powder, if you take the same stuff, doesn't do anything, like lion's mane. There's people saying, "Oh, I'll put some lion's mane powder in my coffee." I'm like, "No, I tried that years ago at the Bulletproof Café and it just tastes bad. But it doesn't actually change how you feel.

But when you get a dual extraction like that, so you're saying, "Look, the fermentation process, just by virtue of having alcohol, is going to pull some of the unusual fatty compounds out so they're available." It makes sense. Okay. I want you to educate me a little bit, because you guys do more than the hard kombucha, which is what caught my eye and made me want to chat with you guys.

You also have hard seltzers and I actually don't really know what a seltzer is, from an alcoholic perspective. What does it mean when you say seltzer, other than bubbly?"

Bill Moses:

It's predominantly a bubbly water. I mean, it's just like a non-alcoholic seltzer. It's bubbly water. And so, today, it's become an overnight \$6 billion category. I mean, literally six years ago. Boom. And so, when you see this, you say, "What's the consumer trend out there?" Again, the larger consumer trend, it's about taking the bad out of something, at least in the alcohol space. These are four and a half, 5% lower alcohol offerings. There has been a movement away from craft beer. They don't want the gluten. They don't want the calories.

Dave Asprey:

Yeah. [crosstalk 00:28:08]-

Bill Moses:

They don't want the sugar. Exactly. In that renaissance of awareness by consumers, this hard seltzer has just absolutely exploded in the alcohol space. And so, seeing that happening and understanding that hard kombucha is a... Yeah, let's just say it's less developed. It's more crafty. It's a little bit more to grok. People can't even say it. We decided to go and do our own fermentation through recapture our own CO2. So we don't have any volatile compounds that you get from traditional CO2, a raw organic CO2, and make our own hard seltzer that is sugar-free with no carbs.

Dave Asprey:

You guys actually have organic CO2?

Bill Moses:

Yeah, we do. We're the only hard seltzer in America that recaptures from our fermentation, the CO2, gets it certified and uses it back to carbonate our beverages.

Dave Asprey:

That's actually cool in a closed loop sort of way, versus buying industrially compressed and extracted stuff.

Bill Moses:

Sure. Totally. Yeah, yeah. That's really interesting. You can really taste the difference, like when you pull it off your own ferments versus buying it and having it shipped in with... Anyway, so yeah.

Dave Asprey:

I like that about what you're doing. I'm the same way with coffee, is that you have to know what's in there, like what happened before, what happened during, what happened after. I find that when people get really deep into whatever their field is, and yours is fermentation, there's all these little things that no one would ever think about. Then if you have the time and the resources to, "Well, what if I did all of it the way I wanted to?" I've never thought of recycling that, but it's a cool idea.

One of the other things that you're doing, that I also appreciate, is you're actually donating back to firefighters. I guess that's because you named the company during the fires [crosstalk 00:30:02]-

Bill Moses:

Well, I mean, it's really interesting. I think I'm a tactile guy that really wants to touch and feel what my give back is, where I am right now. And so, look, I mean, climate change, fires, hurricanes, flooding, all that stuff is happening. It's real. And so, for me, my most impactful way of dealing with this I think is giving right back to the first responders.

There's a lot of mental health issues that go on with them during this time. We do mental health causes. We went to Austin, Texas to really help out during the flooding and the freeze. We really show up when there is an issue, an acute issue, a problem, what we call Ground Zero, to really help those that are really doing what they can in the most immediate way. It's an important part of our business. We set up a 501c3 as well to get other corporations and organizations to partner with us, so that we can do more and give more in partnership, in a non-profit vehicle.

Dave Asprey:

That is fantastic. A lot of companies just don't have a charitable arm. I would say, back when I was trying to Bulletproof, I never did anything formal with Bulletproof. I just did it all personally. Lots of-

Bill Moses:

Yeah. That's cool. That's cool.

Dave Asprey:

... funding of Alzheimer's research and wells in Africa and stuff like that. I think it's a good idea to build it into the company. And that's why with, with Upgrade Labs now... Haven't announced our new logo, but we'll be doing some environmental donations-

Bill Moses:

That's awesome.

Dave Asprey:

... as well to support wetlands, because, well, I feel like we need dirt in order to do everything.

Bill Moses:

Dirt. Healthy, good dirt. Everything's about good dirt, right?

Dave Asprey:

It sure is. Well, I mean, you know grapes, right?

Bill Moses:

Yeah. And it's all about the dirt. It's all about the mycorrhizae, the healthy dirt that's ultimately going to enable the vine, if you're into grapes, to really absorb the nutrients in a most effective way. So it could have the most amount of polyphenols and just be the best fruit. And so, again, healthy dirt means healthy globe, healthy ecosystem and-

Dave Asprey:

Love that.

Bill Moses:

Right on. Right on. Right on. Yeah.

Dave Asprey:

It's funny, fires are a part of healthy dirt, but maybe not the kind of fires we've had in California lately.

Bill Moses:

Yeah. Yeah. I mean, it's good to have a fire, generationally speaking. But we have them, seems like yearly. So that's a bit of-

Dave Asprey:

Yeah. The weekly basis is not good.

Disclaimer: Bulletproof Radio transcripts are prepared by a transcription service. Refer to full audio for exact wording.

Bill Moses:

Totally.

Dave Asprey:

One other thing that I came across when I was checking out your work before deciding to do a show, michelada, michelada, how do you say that?

Bill Moses:

Michelada. Look, I mean, some of the fun things that we could do is we could make these fun cocktails out of the kombucha. Michelada is this incredible spicy mix that you could put into it that makes it, I don't know, just next level flavorful. So yeah.

Dave Asprey:

It's I suppose a mixed drink that's made out of hard kombucha, because I know-

Bill Moses:

Yeah.

Dave Asprey:

... you've launched 25 different projects, because you're a beverage innovator with things. I came across it. I didn't even know what that is. I don't know what language that is. Is it Spanish? Is it-

Bill Moses:

No, yeah.

Dave Asprey:

... Italian?

Bill Moses:

Yeah. It's Spanish. Yeah. Yeah. It's Spanish. Yeah.

Dave Asprey:

So it'd be Mick, not Michel. You're from California. You're supposed to say it right, aren't you?

Bill Moses:

I'm originally from the East Coast. So takes a while.

Dave Asprey:

Oh, right. You butchered it. Actually, half the Spanish words in California are butchered anyway. I used to live in a town called Manteca, and, well, in Spanish it's Manteca, which means lard, because the White guy who named it thought he was naming it... This is funny, guys. He thought he was naming it sweet cream or butter, which is what a mantequilla is. But he called it manteca. So yeah, I went to high school in a town named after lard instead of after butter.

But funny enough, I like both of those. So it's like it was ordained. It was meant to be that way. So when I see michelada, which is how you should say it, I'm like, "I got it." When you say michelada, I'm like, "Damn East Coastern figures of California. Who do you think you are?" But I'll forgive you this time, Bill.

Bill Moses:

Thank you. Thank you. Appreciate that.

Dave Asprey:

That explains also why I was applying at Gallo, which is right next door, in Modesto, California. So there you go. Now what's going to happen with alcohol consumption post COVID? I know you had COVID. I want to talk about you with your COVID experience, but people are paying attention to their health. The whole party scene is blown up. People are sometimes coming back. You've been watching wine for a long time and the whole industry. What's drinking going to look like over the next few years.

Bill Moses:

Yeah. I think it's going to be a year or two of probably some excess. I think a lot of people have been bottled up. No, look, I think there's definitely a thirst for jubilation, celebration. It's happening. And so, again, I think it's going to be something that is going to be a phenomenon this summer when the concerts and the festivals come back. People are going to really get out there. They're going to move their chi. They're going to express themselves, hopefully drink the right stuff and not drink too much of it. And really experience life to the fullest. I mean, that's what I think everybody's waiting to do after the time we've spent sheltered in.

Dave Asprey:

Okay. So you're forecasting a rebound, jubilant party. By the way, historically, that appears... And if you look back at what people do after all the other pandemics that we've had, pretty much lots of drunkenness and lots of babies.

Bill Moses:

Yeah, right.

Dave Asprey:

We'll see what the next couple of years bring us, but they might be great fun, unless they bring us yet another marketing campaign for pharmaceuticals that's tied to, "You're not allowed to do anything fun until you buy our product." Have you ever thought about doing that with Flying Embers, just making it so you have to have a Flying Embers passport before you can go anywhere?

Bill Moses:

No, no. That's not part of our thinking. Yeah, that's not part of our budget.

Dave Asprey:

That was the right answer. I'm glad you answered that way, Bill.

Bill Moses:

Yeah, yeah.

Dave Asprey:

What happened, though, because you got COVID? You got really sick. Tell me about your experience with COVID. This is a real thing. People don't talk about this as much as they should.

Bill Moses:

I didn't grok how impactful COVID could be, I guess, early on. I was taking 10,000 IUs of vitamin D, zinc. I was doing everything, C, astaxanthin. I was healthy. I'm healthy. I'm vibrant. I've got my hyperbaric chamber. I've got my cryo chamber. I'm doing everything you do. We have a manufacturing facility. We ferment and make our own stuff. We've got a lot of people where we're in mass, but we're essential. We're essential, so we were able to go to work and work, which was great.

It was one of the great things about being in the food business was we didn't have to be cloistered up in the home, and actually like we're not. So I was part of the community at work and we had someone come in and got it. And several of us got it at the same time. I just doubled down on everything. I waited and got progressively... I started taking ivermectin and was hammering that. Nine, eight days into it, I was literally unable to breathe.

I had my oxygen machine because I pulled it out of my hyperbaric and I'm like... At night I have oxygen in and I'm like, "I don't need to go. I don't need anything." Actually, I was one of those guys that was part of this cohort. There is a cohort of us out there that actually have cytokine storms, and I had a cytokine storm on one of my lungs, where I actually couldn't breathe. I went into UCLA and I was there almost three weeks.

After time was going on, the oxygen requirement kept going higher and higher and higher. They came in, they said, "Do you have a DNR? We're going to have to take you in and intubate you. We can't get any more oxygen in you." At that given time, I was like, "Oh wow, like this is real." So I call my wife, I call my kids. I say goodbye. I literally say goodbye. I do everything I can to... And I realized that there was no more high flow that I could get. I was at the limit.

Just at that time, the head of infectious disease at UCLA comes walking by and comes into my room and says, "Look, we need to probably find an experimental for your treatment." And I was like, "Okay, what?" He told me what he thinks he should give me. He goes, "We've had some success here. I have to call the FDA to get compassionate use for it, because it's not FDA approved." It's still not.

Dave Asprey:

Even though he's a doctor who has a license to do whatever the F he wants, and the FDA is getting in the way?

Bill Moses:

The FDA will not allow doctors to give anything other than what is approved or what is currently part of their clinicals.

Dave Asprey:

That's an abuse of authority, as a doctor, as a [crosstalk 00:39:30]-

Bill Moses:

Anyway, so he had to go get special permission. Well, he got it and he came in that night and put two shots of this stuff in me, Leronlimab and-

Dave Asprey:

Yeah. [inaudible 00:39:40]-

Bill Moses:

Leronlimab.

Dave Asprey:

Okay.

Bill Moses:

CytoDyn is what is... He had a hunch. He saw it work on several other, and a week later, I was out of the hospital.

Dave Asprey:

That stuff is a mass cell treatment.

Bill Moses:

Yeah, that's right. Yeah. There's some interesting applications on it. It worked for me and I'm thankful for it.

Dave Asprey:

Well, you had a good doctor who was willing to say, "Hmm, I don't know how to treat this virus, but I know how to treat inflammation. And that's what I've been trained to do for years. I'm head of infectious diseases." This is the only pandemic ever where they've forbidden doctors from doing their work.

Bill Moses:

Well, I mean, I think there's really that the treatments are governed. Hopefully, there's going to be more and more treatments for this, because I think there's a lot of us that'll end up getting it and great treatments are going to help us. So I'm all about treatment, Dave. All about-

Dave Asprey:

Treatment is a good thing. It's interesting, the cytokine storm. We know the cytokine that's most common with this is called IL-6. I'm guessing you had high levels of IL-6, right?

Bill Moses:

Yes. Yes.

Dave Asprey:

Did you see the post I wrote in the first two months of pandemic about how to stop IL-6?

Bill Moses:

No, I didn't see it.

Dave Asprey:

No, you didn't because it got taken down.

Bill Moses:

There you go. There you go. Yeah.

Dave Asprey:

Interesting how that works. But there's a bunch of herbals with very potent IL-6-suppressing properties. I know about that because toxic mold people like me who have had mold measures, if we have the genetics for that, we tend to have relatively high IL-6. So I know how to suppress it, and it's not even that hard with botanicals. But apparently talking about that isn't okay. So I didn't.

But it's one of those things where I think that when people are using botanicals regularly, that help to regulate inflammation, even if they're drinking, even if they're eating pizza and cheesecake, which is probably not a great idea. Perhaps we can keep a healthy enough balance that we're less likely to get as sick as you did. And like you said, you're in that cohort. It's probably a genetic thing. And it could be an environmental thing where your mass cells were triggered to be more sensitive than others.

But I'm happy you made it. I'm happy you share the story because people say, "Oh, it's not real." Actually, no, there is something going around. It's real. People say, "Oh, I'm invulnerable because I..." Insert name of health practice. No. You're just more resilient. And there you go. You're sitting here in front of us. You had some resilience and you had good care. Who would have thought? I'm happy you made it.

Bill Moses:

Yeah. Thanks so much. Yeah.

Dave Asprey:

Thanks for sharing your story because there's so much polarization there.

Bill Moses:

Yeah, I think what I realize is that everybody has their own right to have their own view. I mean, really that's it. We control our own bodies. We want to be a choice. Really, there's no judgment around... For me, my view in now is that there's no judgment. If there's no judgment, whether you're for or against something, you want to follow or you don't want to follow, at the end of the day, everybody has their own individual right and choice. And that freedom is really important. It's really important.

Dave Asprey:

Well, very well said. It's funny. I think it's a five to 10% of people are the shrill angry people at either end of the debate. You have like the super keto and other carb is a bad thing, versus like the super vegans, like, "Oh my goodness. A bug touched that, I can't eat it." They're extreme minorities. Then when you get to alcohol, there's people like, "I'm a teetotaler. If you have one drop of alcohol in your vanilla extract, you're a bad person."

Then you get the, "If you don't drink a six pack every day, you're a bad person. You're less of a man." But those are outliers. Most people are in the middle, but we don't talk about it because we're in the middle. I think when it comes to stuff like treatment of pandemics and all, most people are somewhere in the middle. They're curious, interested, and okay with it. So I would just encourage people listening, it's okay to be in the middle and to be curious and just say, "I'm going to make a call. Whether it's I'm going to have some alcohol, I may have a lot or a little, it's okay." You don't have to judge other people.

Bill Moses:

That's right on. Right on.

Dave Asprey:

Especially given that you've had it and it made you really sick, that you're supporting medical freedom, I appreciate that as well. That's cool. All right. You've now convinced me that if and when I get an alcohol license, probably just for my Victoria Restaurant, that I'm going to have to have your stuff. Is it on tap? Is it available in Canada?

Bill Moses:

It's on tap. Oh yeah. Oh yeah. Yeah. We have about-

Dave Asprey:

You can just... In Canada, not just in...

Bill Moses:

Yeah, we're in Canada. We're in Canada. Yeah. Gradually, yeah, we're distributed there.

Dave Asprey:

Because this is a commitment.

Bill Moses:

No, I'm not-

Dave Asprey:

If that happens right now, we're open for an early dinner, but-

Bill Moses:

I'll come up. I know that you don't drink, but we'll have a-

Dave Asprey:

No, I'll drink. I don't drink very often.

Bill Moses:

We'll have a hard kombucha.

Dave Asprey:

I would be honored to toast you with one at the Upgraded Café. So I will do that. I don't know how much it costs or how long it takes to get a liquor license, but I think we're going to just because it's a nice dinner place. I mean, I grow the pigs. I grow the veggies, the land myself, and bringing it to the restaurant, it's my highest and best offering.

Bill Moses:

Oh, sounds awesome.

Dave Asprey:

So how can I not have dinner and make it special?

Bill Moses:

That sounds awesome. That's awesome.

Dave Asprey:

I'm stoked I can get in Canada. Thank you for supporting Canadians. And just thanks for taking industry that's full of a lot of soda equivalents, but with alcohol, and doing something that's different and special. So if you're going to have some alcohol, you've got a good choice. I think you've done something good there.

Bill Moses:

Yeah. Awesome. Thank you.

Dave Asprey:

Would you like to take a couple of questions from our live audience?

Bill Moses:

Sure.

Dave Asprey:

All right. Upgrade Collective, if you want to ask a question of an alcohol innovator, anything about kombucha, stuff like that, now is your chance. Raise your hand. Bonnie looks like she's thinking about it. Deborah has a question. There you go. Deborah, go for it.

Deborah:

Hi. I find that a lot of my clients avoid kombucha because it makes them gassy and that sometimes it can feed the not-so-good gut bacteria. Does Flying Embers help contribute to the good guys or the bad guys? Or can you-

Bill Moses:

No, no, no. Well, I think gassy has a lot to do with yeasty. And so, yeah. It's got to be the right yeast, and it can't be too much yeast. So yeah, no, one doesn't get... The gut fermentable sugars that end up in your stomach and your whole microbiome gets the yeast and gets the sugar. And the next thing you

know, you get gassy. We don't have sugar, we have the right kind of yeast, and you don't get gassy with us. But I think that's the cause.

Dave Asprey:

That is a really good answer, Bill. Deborah, brewer's yeast, which sometimes people take it because of B vitamins. It's actually associated with cancer on PubMed studies. It's not a good thing, brewer's and baker's yeast. That's *Saccharomyces cerevisiae*, and I'm probably saying that wrong, C-E-R-V-I-S-A-E.

Bill Moses:

Cerevisiae.

Dave Asprey:

Cerevisiae. There you go.

Bill Moses:

Cerevisiae. Yeah.

Dave Asprey:

You could tell I've read it 10,000 times and written books with them to be able to say that out loud.

Bill Moses:

Michelada. Michelada. Michelada.

Dave Asprey:

Then you have *boulardii*, which is the good stuff. The *boulardii* is what eats the bad stuff, including candida, including the brewers and bakers. It's the stuff that calms the immune system. So you've got something with zero sugar to feed the bad stuff, and something with stuff that eats the bad stuff. You're not going to get gas from that. If you do get gas, it's probably because you have candida, and then there's some sort of a fight between the *boulardii* and the candida.

But then you already had gas. At least when I had candida for years, I sure had gas. That was a great question. All right. Let's see. All right, Deborah, you had a follow-up question there.

Deborah:

Oh yeah. What's in the michelada? Can we get the recipe for that? We won't tell anybody, I swear. Just-

Bill Moses:

Yeah, no. Actually, my partner's sitting here and he's like saying, Well, what's in there?" Hang on one second. Let me just make sure. It's on a website.

Dave Asprey:

Flyingembers.com.

Bill Moses:

Yeah. There you go. It's on the website. Right.

Dave Asprey:

Anyone else want to ask a question? That was an awesome question, Deborah. All right. We've got one more here from Brandon Wilson.

Brandon Wilson:

Bill, that story about your COVID experience was just amazing. I just wanted to ask, having gone through that, did you make any significant changes in terms of an inventory of your life and behavior and any changes after that experience?

Bill Moses:

Yeah, that's a good question. Yeah, certainly. I mean, what I realize is really all you have is time and family. The amount of time you spend or we waste with frivolous drama-oriented stuff or things you really don't love or resonate with, I'm systematically cutting them out of my life. So it definitely brought home to me what's most important and really how we never know when it's our time. And there's something very sobering about that, when it comes to our choices that we make. So yeah.

Actually, my next venture is actually going to be one more beverage I made that's going to be something that's more of a nootropic. And so, I'm thinking about that saying, "Okay, is this next venture I have, this next innovation, is it going to be something that I'm really going to resonate with?" And so, when it comes to that, you've got to resonate with everything all the time. No compromise. Bottom line.

Dave Asprey:

Love that. What a powerful answer. Fully support it. Bonnie, you've got a question.

Bonnie:

Yeah, Bill. I'm just curious as to where you get your inspiration for all the fun flavors. I was out on the website earlier and the podcast. Just [inaudible 00:49:52] one.

Bill Moses:

We get around a room. We have an innovation meeting. We've got a lot of people around the table that come up with new ideas and we debate them. We source creative ideas collectively and so it's really not one source.

Dave Asprey:

There are whole flavor houses I've worked with when I was developing recipes for the Bulletproof Diet Cookbook and for the café. It is a crazy science. But what you're limiting yourself with is you're using real flavorings versus all the weird stuff. I'm like, "Guys, if you won't tell me whether that's petroleum based, I'm not touching that." So even natural flavors aren't that natural. But some of them are fine and some of them aren't, and extracts and all. So it's really tough.

I think flavoring, it's such a specialty. When you're saying, "I'm organic," it takes away all the weird chemistry and then you've got to really do the hard work. Your flavors are good.

Bill Moses:

Yeah. You definitely get limited. We're all certified organic. Yeah, we can't concoct anything that is too crazy, because it really has to be an organic source from a natural, plant-based.

Dave Asprey:

Cool. That was a really good question because it's flavoring. Any kind of cooking is as much art as it is science. Well, Bill, I want to also extend a thanks. I ask, when people come on the show, provide a discount. When people go to flyingembers.com/dave, you're giving them 15% off all orders. I'm assuming you have to be 21 or maybe in Canada, 18, whatever the right ages are.

Bill Moses:

That's right.

Dave Asprey:

That's cool. So flyingembers.com/dave, or use code Dave. I think you're just taking a clean, healthy approach. Everything is mold tested. Everything's histamine tested. You know what species are doing it. You're using probiotic, proper species. There's no random yeast in there. So this is the kind of kombucha that you can drink if you tolerate alcohol, which most people do in low doses, and you can have a celebratory beverage. So it's cool.

I am going to put this in my restaurant if I get an alcohol license. So that's awesome. Thanks for convincing me, and just for attention to detail. That's what makes stellar brands the stellar products that are safe to use. So, good call.

Bill Moses:

Thank you, Dave. Yeah. Following your lead as well, the testing, the purity, knowing that science is really the most important thing I think for any of us these days, given the state of the world and the state of our ecosystem. So yeah.

Dave Asprey:

Well, we'll fix it one plant at a time, one cubic meter of soil at a time. And organic, you're doing it. So thank you, brother.

Bill Moses:

Thanks, man. Appreciate it.

Dave Asprey:

If you liked today's episode, you know what to do. Couple things. One, well, try some Flying Embers if you're going to have some alcohol. You just learned why that's a good idea. You might also consider joining The Upgrade Collective. Why? Because you could have been in the live audience asking questions and chatting back and forth with me during this, which is a lot of fun. I'll teach you everything that I've written in classes with other people who care about it, so you can have fun.

It's structured, and you can be a biohacker of your own biology. And then you would know when you read the label on Flying Embers, "Should I drink this?" Even if you didn't hear this episode, and you'd probably say yes. Now have a great day.