GUT HEALTH: Enzymes Do the Heavy Lifting – A Top 10 Episode with BiOptimizers

Announcer:

Bulletproof Radio, a state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey. The two guys I'm going to interview are the founders of BIOptimizers, Wade Lightheart and Matt Gallant. And Wade is a former three-time Canadian, natural bodybuilding champion and Matt's an experienced strength and conditioning coach for pro athletes, a self-defense instructor who's in ketosis most of the time. And he's been working on supplements for more than a decade. All right, I want to know how we got a vegetarian bodybuilder. Are you still a vegetarian?

Wade Lightheart:

Yeah.

Dave Asprey:

All right. So what drives that? Is that health and performance driven? Is that animal? What's your thought behind that?

Wade Lightheart:

I think we share a similar idea and that is a certain amount of curiosity. And so I grew up, like every Canadian boy, in a very rural environment, wild game, growing food in the garden. And I went to university and I started to notice there was an effect on my health just by switching from what I had at home, to what I was in a university setting. And that was an eye-opener when I was studying exercise physiology, nutrition, and I didn't understand it, that was a long time ago. And then I started on that evolution. And about 10 years into my bodybuilding career, nobody was doing this as a vegetarian, it was virtually thought it was impossible. And I read a book called The Holy Science and it was a guy talking about the nervous system and the digestive system. And he was talking about meditation and vegetarian diets.

And I said, "I'm going to experiment with this for a couple of weeks." And I did it for two weeks and I said, "Well, I'm going to experiment for two more." I thought I was going to dry up and blow away. After a month I didn't and I was like, okay, I'm still alive. And I went another month and after two months I just stopped doing it and I said, "I want to see if I can actually win championships, if I can be a successful competitive athlete on a plant-based diet." It turned out all right and I ended up winning a whole bunch of contests and went to the Mr. Universe and world championships. And back at that time, that was unheard of. And then that started a pattern of behavior of looking at optimization from a different perspective.

Dave Asprey:

So are you vegetarian or vegan?

Wade Lightheart:

I classify myself as vegetarian, so.

Dave Asprey:

Got it. And I find that people perform reasonably well as vegetarians and some people totally kick ass, but having some of those animal derived fats, particularly dairy fat, and some of the Omega-3's seems to be pretty important, maybe some eggs. But if you're just doing the pure plant thing, and I was a raw vegan for quite a while because of enzymes, believe it or not.

Wade Lightheart:

I did go vegan for two years.

Dave Asprey:

Oh man, it didn't wreck you the way it did me, man.

Wade Lightheart:

Well, that's what led to the development of the digestive experiments. Because I needed a way to optimize the amount of protein I was converting into amino acids. Because I mean, I'm competing at a world championships on 85 grams of protein a day when my competitors are doing 250, 300, 350. So that's what got me into that whole digestive idea of how do I optimize my digestion and make that functional with the diet I had.

Dave Asprey:

All right. So that's how you got into this. Now, Matt, you're a martial artist and-

Matt Gallant:

I'm a kinesiologist, actually got a degree in the science of physical activity and both Wade and I were personal trainers for about a decade, and that's how we met. I was a trainer back in Moncton, New Brunswick, where he's from, he was living in Vancouver, came back to see his parents. We met at the gym and then I said, "Hey, I want to move to Vancouver." Moved to Vancouver, became one of the busiest trainers at World's Gym downtown. But yeah. And then met Wade, and of course, I was doing keto and he was vegetarianism. And so, yeah. And then Wade was winning some natural bodybuilding championships, I was studying marketing and I said, "Hey, let's package your information." And that was 15 years ago. So we've been actually in business for 15 years.

Dave Asprey:

All right. Let's talk about the two big areas where you guys have focused. Let's start talking about enzymes. Tell our listeners exactly what an enzyme is.

Matt Gallant:

Well, first of all, we all have an enzyme bank account in our bodies and they do about 25,000 different functions in the body. Everything from thinking to blinking, enzymes are involved. They're the, you can call them the catalyst that kickstart chemical biochemical reactions in the body. And when we eat food, we need to break that food down. So our body's going to use our enzymatic bank account to break that food down.

Dave Asprey:

Now, a lot of people don't know this unless they remember something from biochemistry in high school or they studied it in college. But if you have a chemical reaction, it usually takes a lot of energy. You have to cook something on a Bunsen burner or something like that. Or you add a small amount of the right enzyme and magically, it takes far less energy to make this happen. And this is the difference between biochemistry and "regular chemistry". And it's starting to look like most enzymes work at the quantum level, where they're able to tunnel electrons in a way that doesn't happen in non biological systems, which is really cool. We just don't know some of the guts of these things, but your comment, Matt, about enzymes being present, 25,000 different types, present and countless things happening inside the body, it's not just what we get from our food. They're actually manufactured on board in distributed systems and in a few different organs and where the organs, where these are mostly made for digestion. Either one of you guys can answer this one.

Matt Gallant:

Yeah, our bodies can convert enzymes from one type of enzyme to another inside the bodies, just depending on what you need, your body will basically manufacture the enzymes on demand. Starting with when you start chewing on food, your body, your brain identifies, okay, I'm eating starches or I'm meeting a banana, I need more amylase. So that's why chewing is so important. Because when you're chewing, your brain is recognizing. So depending what you're eating, your brain is going to recognize what enzymes it needs to produce and then start breaking that down in the mouth and then continuing to excrete enzymes inside your stomach.

Dave Asprey:

So this is one of those areas where I would say, we don't know nearly enough, especially if we look at the complex between what food is it, how was the food grown? How was it cooked? What else did you eat with it? And what else was present in your natural flora? And then what's your genetic history, what's your mitochondrial DNA, what's your nuclear DNA? It's that combination, which is probably, if you look at the number of possible combinations, it's greater than there are stars in the universe kind of thing. It's that level of complexity. So we're just starting to tease out patterns and things that work, and you guys have done some fascinating stuff there.

Matt Gallant:

That's what's cool with enzymes, there's many different types of enzymes that do different things, both Wade and I feel the most important ones though, are proteolytic enzymes, the proteases. Because two reasons, one, when we can't break down protein, we get problems from allergies, which is basically proteins we can't break down, to protein toxicity, undigested proteins in the blood and the gut, all of those are very problematic. And then on the plus side, if we can break down protein to amino acids, all kinds of amazing things happen.

Dave Asprey:

You talked about protease and protease is really interesting because there's a whole bunch of different classes of those. And plants naturally contain enzymes that break down those proteins, unless you cook the plant or you store it wrong or all these other things. But they also contain enzyme inhibitors, which are chemicals that stop them from working. And this is why when people say eat whole grains, do you know what's in the outer lining? It's covered in stuff that keeps you from getting benefit so that plants babies can survive because if they weren't coded in that stuff, animals would eat the seeds even more

than they do and there would be the end of that species. But the other two that are worth mentioning for listeners are lipase and amylase. Walk me through those.

Wade Lightheart:

Yeah. So amylase is really the enzyme that's responsible for breaking down carbohydrates. We started looking at that and addressing first the dietary components and then getting into the enzymes to say, well, what enzymes will have X amount of fat? And as Matt said, protease was the number one factor. And then for people based on the dietary choices, that way, if they were, let's say they had trouble losing body fat, chances are they're going to do much better if they add more lipase into their diet, or if they have skin conditions, oftentimes a lipase enzyme would be very effective. Also, if they have trouble, as we talked about carbohydrates or they get brain fog, amylase is really good. So these type of patterns and enzymes you'd start to see in dietary choices. And as they would clean up their diet and clean up their lives, all of a sudden flexibility would open up as their digestion improve or their digestive strategy improved.

Matt Gallant:

Yeah. I think there's different things we can do to figure out what works for us. And first and foremost is biofeedback, which you don't need a machine for, it's, I felt like crap two hours after I ate that meal. I mean, we don't need tech for that.

Dave Asprey:

It's like a million dollars worth of sensors embedded in your brain.

Matt Gallant:

But a lot of people ignore that. I mean, a lot of people won't pay attention to really how they feel. If you want to get more technical looking at HRV data after a meal-

Dave Asprey:

That's heart rate variability.

Matt Gallant:

And when you eat things that your body doesn't like, it will go up or it'll go down, basically, it'll get worse.

Dave Asprey:

If you eat something that isn't compatible with your system, you measure your heart rate variability and oh, if it drops, which is a bad thing, afterwards, it means your body got stressed by what you ate. And it's interesting also, you can self test with that stuff and say, well, what would happen if I took enzymes or I had a different composition of gut bacteria? Which you can measure with tests, or you can just say, I took some gut bacteria and presumably it made it through. And that's stuff where you guys have spent a lot of time and energy and just decided, you care about it enough to start a company. The biggest thing an entrepreneur can do is say, this matters enough that I'm going to spend years of my life on it. Have you seen differences in other people or in yourself, in their after a meal, heart rate, variability, if they take enzymes or probiotics or the same kind of foods?

Matt Gallant:

Yeah. No doubt about it. Your heart rate variability improves dramatically.

Dave Asprey:

There's a couple other kinds of enzymes that we didn't talk about. And we've all heard of people who are lactose intolerant. So like any dairy, I'm like, what are you talking about? We've had lactase, the enzyme that solves that problem available for something like 40 years. So yes, you can eat dairy. It doesn't mean you should eat, especially casein is a low quality protein that's tied to inflammation. I don't recommend people eat that stuff on a regular basis, but you should definitely take lactase if you're sensitive. And we can talk about that one. The other one that you might've heard of is cellulase and cellulase helps you break down rough fiber, basically. What is the role of those?

Matt Gallant:

Yeah. Well, going back to the cow milk, I think a lot of people, the issue is not, they think it's lactase, but I think it's the A1 protein.

Dave Asprey:

You're exactly right. Talk about A1 and A2 protein real quick, if you would.

Matt Gallant:

Sure. So A1, A2, are just different types of proteins and myself personally, I can't do A1. I mean I try-

Dave Asprey:

That's the most common kind of milk protein you get from a species of cows that makes a kind of protein that's hard for most people to digest.

Matt Gallant:

And pretty much every other animal, I can do goat cheese, I can do pretty much any other type of animal cheese, no problem.

Dave Asprey:

Yeah. I like sheep. I do pretty well on that stuff.

Matt Gallant:

Yeah, exactly. So that matters quite a bit. And I think for most people, the inflammatory response they get from A1 is very high and they should probably move away from it. As far as cellulose and cellulase, that's basically when you're eating a lot of veggies, it's very difficult for the body to break down the cellulose, which is the cell membranes that plants have.

Dave Asprey:

What happens if people take baking soda or alkaline water with their meal?

Wade Lightheart:

It's a great question. Think for the most part, when it comes to digestion, for example, your stomach acid is extremely acidic, so drinking the water or taking baking soda probably wouldn't interrupt it as much from an acidic side, but it would affect the enzymatic solubility. I don't recommend taking baking soda. I think it's a poor way to alkalize your body in the long-term. It will work short-term, I think it's a long-term detriment to the body.

Dave Asprey:

Are you saying with meals or at all?

Wade Lightheart:

Just at all.

Dave Asprey:

Interestingly, there's some new studies coming out around auto-immunity and I think there's probably a good case for some people taking it on an empty stomach, but never with food. And when I got my first alkaline water machine in about 1996, somewhere around then, and for a year and a half I had this undigested food in my poop, and I just couldn't figure it out. And well, alkaline water, stomach acid, enzymes. So I found that drinking that with meals was a really bad idea for me, even if I took HCL capsules, the butane HCL that you guys make. I wasn't taking yours back then, that was before you existed, but the same general concept. But different effects happen if you're doing on an empty stomach.

Wade Lightheart:

Correct.

Dave Asprey:

And your pH is regulated by this amazing thing we do call breathing, not by what you drink.

Wade Lightheart:

Yeah. I think that using various breathing techniques is probably the most effective way to alkalize the body, whether you use water breathing, there's a lot of different methodologies.

Dave Asprey:

Going back to hydrochloric acid, which I think is a really important thing, because there's so many people that are being treated for acid reflux, and they think they're not producing, or they're producing too much acids the opposite.

Wade Lightheart:

Which is actually the opposite. Because when you hit a certain saturation level of hydrochloric acid, it flips the esophageal sphincter, which is like a little lid that closes off the stomach. So the acid doesn't splash up into esophagus. And if you don't produce enough, the lid doesn't shut and now you get acid splashing and you go to your medical doctor, he gives you a proton pump or something. And now you're inside that system. And it's just going to be the next drug and the next drug, the next drug. And I think if you polled a hundred people who had acid reflux, they think that they're producing too much acid. And I think it's a great injustice to people's education on that part.

Dave Asprey:

I'm so happy you said that, when I was 23, and this is going back more than 20 years, I had my first bout of acid reflux and it felt like there's a candle burning in my chest. I went to the doctor, I'm like, I'm dying, this is horrible. And he said, oh yeah, take some PEPCID AC and the next, oh, I feel so much better. But after a year and a half of taking that, I'm actually not better on other fronts, this doesn't seem good. So that was when I first looked at that early research about HCL. And I actually had to take six capsules of hydrochloric acid, which is quite a large dose in order to get that valve to close. And over the course of time, as I fixed my gut, I actually found it needed to take less of it.

But it's just a great act of service for you to share that. And for everyone listening, if you or someone you know, has that problem, and you're on proton pump inhibitors, you cannot digest or sterilize your food if you're taking those, they are terrible for you long-term even if they stop the pain. So I recommend for people who have that problem, if after a meal, you have acid reflux, I'm going to say baking soda because it'll stop the pain and it's way better than taking these other things. But next meal start taking hydrochloric acid, which is available in capsules. And that's one of the things that you guys have in some of your formulations, which is cool. And it actually works. You want to hear a cool story about peristaltic contraction?

Wade Lightheart:

I am always up for a cool story.

Dave Asprey:

All right. So if you're listening to this going, what the heck is that? That's the little compression of your intestines when they squeeze to move stuff through the tract. And there's actually a specialized form of tissue that does that, which is kind of cool. When I knew I had this gut problem, and I had tried everything. I tried a bunch of different, this is going back a long time, a bunch of different, I would say, mostly dead probiotics that oftentimes didn't do anything. And there's been a big change in technology and understanding of those in the last 20 years since I started all that. And I said, all right, I'm going to try this thing. And I found a swallowable tens device from Russia. So tens is intellectual stimulation thing and leave it to the Russians, they're the most bad-ass biohackers, I think it's because, I don't know what's going on over there. But for the last 40, 50 years, all the weird vibration, electrical peptides, all this stuff they're one of the leaders in this.

So it was a horse pill size capsule and it's activated by moisture, so you just swallow the thing. I'm like, this is kind of cool. And every five seconds it was, and the deal was it's going to strengthen peristalsis. I'm like, I know my gut isn't working. I'm so go damn tired, I'll do anything. And it came with Russian writing on this little pack, I ordered it from overseas. And I swallowed the thing and I was like, every five seconds, I would twitch as the thing would go off. And I'm doing all right and about eight hours later, it's somewhere in my small intestine, right by my left hip flexor. And it gets lodged there. So my left leg is just kicking every five seconds and it's not moving, this is horrible. So I started jumping up and down and doing weird positions and headstands and whatever I could do to dislodge it. So I finally did, but there was a couple hours, constantly.

So I can tell everyone listening, that that might not be the best way to stimulate peristalsis. So what is the best way to stimulate peristalsis, if you have slow transit time in the gut?

Wade Lightheart:

Well, one of the things that I do every day as part of my practice, is I get in a semi squat position with my hands on my knees, I do a deep exhale, exhale the water. And then I bring in my stomach in and out rapidly as many times-

Dave Asprey:

With your lungs empty?

Wade Lightheart:

Exactly. And I do that usually five sessions, like five rounds of maybe 10 or 15 seconds each. And I do that every single morning as part of my routine or as I call it my awesome health formula.

Dave Asprey:

All right. Let's talk Matt about that proteolytic enzymes for speeding up recovery and for changing flexibility, but let's talk about recovery of things like sprains and strains. What have you found in the research on that?

Matt Gallant:

Couple keys is one is start taking the proteolytic enzymes as fast as possible. And the other thing is you want to take it on an empty stomach-

Dave Asprey:

That's really important-

Matt Gallant:

But that's the whole thing.

Dave Asprey:

The different use than digestion.

Matt Gallant:

It is. Now we're getting the systemic results and as most of your listeners are into biohacking, as great as the digestive results are, the systemic stuff is also as exciting because now we're really starting to reduce inflammation, clean old undigested protein. It might be lying around in the intestinal track and even on fast. Wade and I have done a lot of fasting from three days, five days, in ways in a few 10 days, one of the best things you can do to improve a fast is to take a lot of proteolytic enzymes on an empty stomach throughout your fast. Because now you're cleaning house, now you're going to get the enzymes in your blood, into your intestinal tract without the food. Because if the food's present it's going to break down the food, it's going to focus on that. But if there was no food, now we're really cleaning again, the old crud that might've built up.

Dave Asprey:

It's funny, if you imagine that each cell in the body wants to do what it's designed to, when I say it wants to, it actually has ancient bacteria, puppet masters, driving it saying, this is what you're here to do. And it's part of a whole system that emerges in us being [inaudible 00:20:19] for these bacteria. And if they have more enzymes present, because you took them, they will be able to do their biochemical activities

faster and better. All right, let's talk more about probiotics. And I just want to preface this by saying I've been taking a whole bunch of different probiotics on and off for a long time. And I've never felt a difference from probably 80% of them. And that's because a lot of them are dead, the way they're delivered, the way packaged or they get killed in the gut. And I know you guys have done a lot of work on solving those problems.

Matt Gallant:

Well, what we focused on is the developer strain that, first of all, there's two types of strains, they're either transient or colonizers. And the colonizers is what frankly, we feel is in the BSL. Because we're not finding much again with the Viome tests that is colonizing. The transient strains, they go in the body and the leave. So we focus on developing a strain that eliminates bad bacteria. And it's a very special strain that is basically like a Navy Seal of probiotics. We've taken L. plantarum, We put it through a process where it literally evolves into a far stronger version of L. plantarum and just basically kicks the butt of any bad bacteria.

Dave Asprey:

And that process, you're talking about is fascinating for people listening. You can take bacteria when you're culturing them and you can make life tough. So only the really strong ones survive. And the same thing works in your body. You do cold showers. So the same idea that mitochondria can't make energy, they die so strong ones can come in, you do the same thing to push probiotics, you get these really powerful ones that come in and they basically see the normal bacteria in the gut and they're like bonk. And they can literally do things because they grew up in a stressful environment, which is kind of cool. All right. I got to ask you about a slightly uncomfortable subject here, but one that I may or may not have experimented with over the years. Sometimes getting bacteria into the large intestine doesn't work very well through the mouth, there might be another way to get it in. What's your take on basically using probiotics in reverse. We'll put it that way politely.

Wade Lightheart:

I'm going to turn this over to Matt because he's-

Dave Asprey:

He's probably the pro.

Wade Lightheart:

He's created maybe the most creative way to address this problem in the world. So I'm going to cue him up. Here you go, Matt.

Dave Asprey:

All right, Matt, tell us how to put probiotics where, never mind.

Matt Gallant:

Yeah. We call it the Batman enema. So just a couple of things going on here. First of all, you take about five capsules and you put it in coconut water, about a liter-

Dave Asprey:

This is the P3ON, the strain that you developed.

Matt Gallant:

P3ON. Now, and this strain actually doubles every 20 minutes, which if you know probiotics is very fast. So every 20 minutes it's eating the sugar and they just multiply. So it gets, in three, four hours of fermentation, you're multiplying quite a bit.

Dave Asprey:

So you grow a lot of these things in coconut water.

Matt Gallant:

Yes. And it eats the sugar. And you'll know when you taste it and it's turned acidic it means the sugar is pretty much gone and that's the time. And so depending on room temperature in Panama, it's like three hours, here probably be maybe five or six. So once it's ready, you do an enema. And ideally you use maybe a teeter, the backend virgin device.

Dave Asprey:

So we hang upside down?

Matt Gallant:

You hang upside down. And now it's going to make it sway through. And what's interesting unlike other enemas, a lot of times, there's nothing that comes back out, your body absorbs it.

Dave Asprey:

And how much liquid are you using for this?

Matt Gallant:

Maybe a liter a liter and a half.

Dave Asprey:

That's a lot of liquid.

Matt Gallant:

Yeah. And I will say that I've had the best, the only time in my life that that weird rubbery tar stuff came out of me.

Dave Asprey:

Gross.

Matt Gallant:

I know, that you sometimes see in online or pictures of, was when I did that, I did a clonic. And then it was a couple days later, some against stuff that I've never seen come out of me.

Dave Asprey:

All right. I've got one more question for each of you, Matt I want you to go first. Someone comes to you tomorrow and says, I want to perform better at everything I do as a human being, three most important pieces of advice. What would you say?

Matt Gallant:

Go to 40 Years of Zen, oh, really, okay. No, I'm serious. For me, I've done it three times. I'm going again September and nothing's given me the ROI. I mean, to spend five days upgrading my brain, my limbic system, my nervous system, learning how to control my brainwaves, cleaning house, emotionally, all the things that we do there, it's just been transformative. And I keep going because I haven't found the ceiling yet. I just keep getting amazing results. So thank you.

Dave Asprey:

Wow. Thank you for that. I totally did not know you were going to say that. I appreciate it. And for people listening, 40 Years of Zen is the neurofeedback facility that I opened a few years ago because I needed neuroscientists for my own brain to do what I do. So thanks Matt.

Matt Gallant:

Dave did not pay me to say that, I'm paying him to go, so. The second thing, I mean, if I could only take one supplement, it would be enzymes, when I travel or I mean at times for logistical reasons or whatever, I've run out on the road and life's not quite the same. So for me, if I had one supplement, it would definitely be the enzymes. And then the third thing as far as, I would probably go with meditation, which goes with the first one, because I found that to maximize or continue making the gains from 40 Years of Zen, I've been meditating, which by the way, I couldn't meditate before 40 years. I tried. I mean, I'd do it, but it wasn't effective. And then after the 40 Years of Zen, it's like, I wanted to meditate, I knew how to do it. And it's just been amazing. So that'd be my three things.

Dave Asprey:

Beautiful. So many people talk about meditation as one of their three things. And I like to invite people on the show who've done all sorts of things that are changing the world in some meaningful way.

Matt Gallant:

And I'm going to apologize, but I'm going to go for a fourth one.

Dave Asprey:

All right. Which is always take a fourth one, great one?

Matt Gallant:

I know. So let's go for it. Deep sleep. So I've spent about 30 grand creating a sleep system. And I used to be a guy that I needed eight and a half to nine hours. And now I'm down to six and a half, seven feeling twice or three times better than I used to sleeping more.

Dave Asprey:

Sleep better, not longer. I love that.

Matt Gallant:

Yes. And I know you're all about that too, so.

Dave Asprey:

All right, Wade drop us some knowledge, Mr. Bodybuilder.

Wade Lightheart:

Well, the three things I would recommend are not really nutritional or supplement or diet related.

Dave Asprey:

Yeah. That's fine.

Wade Lightheart:

It's air, water, and exercise. Deep breathing practice usually correlated with meditation, that's the first thing. Breathing is the first thing we do when we get on the planet, it's the last thing before we leave. You can go months without food, you can go week or so without water, you can go minutes without air. So I think a lot of people just don't know the power of breathing practice with consciousness and how it ties. Because it's the only thing you can do consciously and unconsciously and its effects on the body are virtually instant. Second thing is water, ensuring proper hydration. Everything works better when you're properly hydrated. 95% of the population at least is chronically dehydrated. And that means that they're going to take time in order to get their hydration levels up.

And then the third thing I think in today's sedentary based world is exercise. Find the exercise that is the most efficient, effective for your lifestyle. The one that you love to do and the one that makes you feel the best and just integrate those three things. And I have a program called the awesome health formula because once you get your digestion figured out, we say activating awesome health. Our mission is to end physical suffering through optimizing digestion and then activating awesome health, leading into the things that you talk about and how do you optimize. And so those three things are the primary factors. And then if I was to add a fourth thing, everything works better when you get your digestion in order. It doesn't really matter what diet is suitable for the person. I've yet to find someone who hasn't taken 30, 60, or 90 days to really just focus on optimizing those components of the digestion that we talked about. If you do that, it'll carry forth and you'll fully understand and comprehend why optimizing your digestion just has a cascade of benefits. It makes everything else work.

Dave Asprey:

So if you're listening to this and you're thinking, all right, I want to upgrade my energy pathways. Well, getting your body to assimilate the nutrients you take so that you can burn them in your mitochondria is a really important step of this stuff. We've talked about Viome as well, so we can start to quantify what's going on in there, which is really cool. It's a neat idea to run an experiment and say, I'm going to do a test before, take the enzymes, take the P3ON and then see what it looks like later. And you really ought to see a change, which is kind of cool. And this is something that you guys have quantified. Thanks guys. And thanks for being on Bulletproof Radio.

Matt Gallant:

Yeah. It's really been an honor.

Wade Lightheart:

Yeah. Thanks a lot, Dave. We really appreciate being here and we can't wait to play around in this amazing facility you got. Wow.

Dave Asprey:

Nice.