

Hack Your Neurochemistry with Customized Nootropics – Mr. Noots & Matt Gallant – #861

Announcer:

Bulletproof Radio, a state of high performance.

Dave Asprey:

You're listening to Bulletproof radio with Dave Asprey. Today, we're going to go deep on one of my favorite topics of all times. And it's nootropics, also known as smart drugs or cognitive enhancers. And if you're a longtime listener, or you've read my book about cognitive enhancement called *Headstrong*, you recall that in the mid to late '90s, I ordered a \$1200 plain brown paper wrapped package of nootropics from Europe that took about six weeks to arrive because you couldn't actually get nootropics in the US. There weren't the natural formulas that you can get today. And the pharmaceuticals that I wanted had great research behind them.

One of my now mentors and friends, who's an early guest on the show, Steve Fowkes had written about these in the 1980s. But it was like this huge pool of knowledge and no one recognized it was possible. So there was a divorce between reality, which is that there are thousands of studies showing you can make your brain work better. And then, the public narrative, which is that I am a doctor, I work for a large pharmaceutical company and there is no way to improve your intelligence. Even when the same pharmaceutical company would sell something like modafinil that really did increase cognitive function in studies. So it's like this willful blindness towards the fact that you can improve your brain.

Now, why did I buy these things? Because my brain was failing. I was a CTO level founder, entrepreneur guy in Silicon Valley. And there were days where I couldn't make my brain work and I bought disability insurance. And I bought it because I passed every lab test. Everything I knew said nothing was wrong, but I'm like, I can't remember stuff. Maybe I am disabled, I don't know. But I'm just going to do this as insurance. So, I took these things. And I was pissed. Because after a week, I'm like, "They don't do anything." I spent all this money. I waited all this time and got all excited. So, I stopped taking them. And then the next day, I said, "Wait a minute, I'm grasping for words." And then I thought about it. And I realized that when I took them, my memory worked. But it felt so natural to be like myself, that I didn't notice.

So, it turns out, you'll notice a lack of cognitive function much sooner than you'll notice an improvement in cognitive functioning. So you just feel like yourself, but like, even more like yourself. And this is a big lesson for me. And it drove me eventually to do neuroscience and neurofeedback and things like that. So, that's to frame why I care so much about nootropics and also figure out which ones work for you because it's not like the same things work for every single person. You may have different GABA receptors, different serotonin receptors, different levels of acetylcholine binding and all kinds of stuff. So, it's something that you tune over time. It's really something that I did.

And that's why I put together this episode for you today. One of our guests today has been on the show several times to talk about biohacking, psychobiotics, magnesium enzymes, blood sugar. So, a friend biohacker, and I'm talking about Matt Gallant, who's a co-founder of BiOptimizers, one of the companies that makes good quality supplements. And as you know, yes, the company I founded Bulletproof that I do not have a business relationship with anymore also makes some stuff that I formulated. So, here's the deal. No one company, including BiOptimizers, makes every supplement you'll want to take. It is a community of people working really hard to make good stuff and certain companies meet the bar.

Certainly Matt's does, which is why I have him on the show as an expert. And what he does that's cool is he looks at important connections in body systems, and this way similar to the way I think, and then find ways to tweak human performance. And he and I have talked a lot about the brain and about customization of things. But there's someone new to the show, who is someone that you might have heard of, but you don't know who he is because he actually has a secret identity. No, I'm not actually being sarcastic here. Yes, I know, Bulletproof, Superman, all that kind of stuff. But he calls himself Mr. Noots as in nootropics. And he's working with Matt on custom nootropic development. Customize them on a per individual basis.

And he's kept his identity confidential because he's a super nerd. He does the scientific research and development. Guys, I'm a nerd too but I spend three quarters of my time creating things for you like this show, writing books, the upgrade collective where I'm teaching all the time. And the more you spend sharing, the less time you spend with your head down reading journals, in fact I get stressed. One of the few things that does stress me like I want to read more. But I don't have the time. So Mr. Noots, our friend here, has said, "Okay, I am going to stick to my knitting here." And I totally respect that. Although he did decide at the beginning of the show before we turn on the camera that we can unveil his true identity.

There you go, you guys are going to learn who Mr. Noots is. And you're going to hear more about custom cognitive enhancement, custom nootropics where you actually can tweak the levels of lots of different compounds to get something that works for you. That's very data driven. There's a ton of work that's on this stuff. It's pretty cool. So Matt and Mr. Noots, welcome to the show.

Matt:

It's great to be here, Dave. Do I have the record now as far as most times? I think I was tied last time, does this push me to the winner's circle?

Dave Asprey:

You might. I mean, I did have that professional dominatrix on so ...

Matt:

I met her. She's awesome.

Dave Asprey:

Oh no, she wasn't on the show more than once. That was someone ... No, I'm kidding. Just joking, Mistress Natalie. She's going to be speaking at the biohacking conference, which is happening, I think, actually four days before this episode is going to go live.

Matt:

Yeah, I can't wait to be there. We're going to be there with a booth. So, if anybody's there come say hi. I can't wait to see you. It's the best biohacking event in the industries.

Dave Asprey:

That's the first one. That's for sure. And I think we're still the leader. I will do my best on it. Let's talk about true nerdiness. And Matt, I'm sorry, you've got enough of a business background. You're only like half nerdy. You do party hair on the side, which as everyone knows is incredibly uncool.

Matt:

I try to hide my nerdiness if you knew some of the board games and things that I'm into, it would expose how nerdy I actually am.

Dave Asprey:

He plays MTG, doesn't he?

Matt:

I just dropped \$50,000 on spaceships for a Metaverse game that's a blockchain NFT game yesterday. So, that should tell you how nerdy I am.

Dave Asprey:

All right. So, you've got some pretty strong nerd cred. But compared to Mr. Noots, who before he was 10 built a helium, neon laser from scratch and built his own radios. Spent his 20s in the Air Force and became an endurance athlete and then figured out that was dumb and became an eventual bodybuilder. I'm kidding, you might think it's dumb, but really, really turned into a biohacker and a chemistry nerd. And some of my favorite friends in the industry have a chemistry background, or a biochemistry background. Because sometimes you have to have that knowledge in order to figure out how things actually work.

And when you have the knowledge, you can actually say, "You know what, I know how it works. Therefore, this should work. Therefore, let's try it." And then measure whether it does work. And that process is different than big pharma where they're like, "You can't know if it's going to work or not, therefore, double blind placebo control, \$100 million trial, blah, blah, blah." And it's almost like this weird perspective. But we're saying, "You know what? A and B and C are to work. And it's okay to try it." Versus, "A and B and C might work but it might not. Might not work, so we have to do more trials and all that." So you're willing to be a guinea pig and I like that.

So, can I tell people your name? You want to tell people your names?

Mark Alan Effinger:

Let's do it brother.

Dave Asprey:

Stand up and flex? Look at that, right? He's got mister bicep noots. All right, Mr. Noots, what is your true identity? Unveil yourself.

Mark Alan Effinger:

So, Mark Effinger is what my mother named me. Marcus Aurelius is what my father named me. My mother said Mark Alan would be a little more appropriate for this young Catholic family. So, Mark Alan Effinger. There you go.

Dave Asprey:

All right, you've been unveiled. I like the Marcus Aurelius and the parental disconnect there. My son's name, by the way, is Alan same spelling as you. But my daughter Anna, I seriously ... I really did this, I

lobbied with my wife to make her middle name Bolic because anabolic would be the cool [crosstalk 00:09:19].

Mark Alan Effinger:

Dude, you can retro that now you know. Yeah, maybe she could be recognized as, I think, that's a popular ...

Matt:

Anabolic is one of my favorite words period, so.

Dave Asprey:

Would that just be the best? I went down and I'm like, "Okay, log, analog, that'd be cool. Purna, Annapurna." My wife vetoed all of those things. So anyway, we shared our nerdiness here but you guys know, Mark Alan Effinger is Mr. Noots. And he's one of our guests on the show. We're going to go into nootropics and we're going to talk about some of the problems, some of the concerns I have in the industry, as a guy who has formulated nootropics and has certainly been a leading advocate. I'm the guy who was on nightline nine years ago saying, "I am willing to not have a bag over my head and talk about the fact that modafinil got me through business school, and made me a better meditator," and things.

So, I'm all in on this stuff. But I have concerns and we're going to go through those things.

Mark Alan Effinger:

Actually you're quite an inspiration, Dave. I mean, if it wasn't for you, I don't know that the industry would even have the kind of footing it has right now.

Dave Asprey:

Thank you. That was my intention. I didn't want to be the guy who made nootropics. I wanted it to be the fact that it's possible therefore, let's all do it. I mean, take them and let's all make them. And so thank you for stepping up and saying you're going to make it. And there are listeners who say, "You're making dirty money." I'm like, "Look, dirty money is buying something from Alibaba, marking it up five times on the Slick website, okay, there's no value add there. But if you actually put your money and your time into creating something that doesn't exist, that should exist, and you make money. That's called making the world a better place. If anyone has a problem with that, you can hit the unsubscribe button right now, like seriously, none of that. That's not how the world works.

We need creators who build stuff that's real. I just want people to see it was real so that we could all build it. So, Mark, why would someone take nootropics?

Mark Alan Effinger:

For me, it was quite a journey. But I don't know if we're going to get back to that later. But I first started to do it as a way to get off coffee back in the '90s.

Dave Asprey:

You're a bad person. I thought you were normal and healthy. Getting off coffee? There are studies that show that 87% of your quality of life goes away when you go off coffee. Why would you do this? I'm kidding. Yeah. Keep going.

Mark Alan Effinger:

There's a truth there. There's a big truth there. I was living near Intel and I had run into huperzine A from a guy that was doing an early morning radio talk show like the 4:00 a.m. to 7:00 a.m. slot.

Matt:

Yeah, I used to take that stuff.

Mark Alan Effinger:

Yeah. And so, I drove up from Portland, Oregon to Oregon City, met with them. And it was like, holy crap, this can do what? And so, that was kind of the start of it. And then I started working with ... We'd hired a bunch of Intel engineers for my company at the time doing laser technology. And I said, "I'd like to see if we can improve your performance without burning you out at the same time." And so, scaled down the coffee, scaled up huperzine A, saw the performance increase. Everybody said, "This is a way different event for us." Of course, at the time, we didn't have Bulletproof. We didn't have MCT. We didn't have C8.

Dave Asprey:

Oh, yeah. There's been some changes in that world. So, let's talk about huperzine. So you and I, and Matt, we all know what that stuff is.

Mark Alan Effinger:

Yeah.

Dave Asprey:

But define what it is and what it does. Talk about acetylcholine and all of that in blood flow.

Mark Alan Effinger:

Yeah. So, huperzia serrata, right, it's an extract and it increases choline flow, right? It also reduces cholinesterase enzyme so that the choline keeps flowing through the synapse.

Dave Asprey:

And choline is essentially a neurotransmitter?

Mark Alan Effinger:

Choline is one of the primary neurotransmitters for thinking.

Dave Asprey:

There you go. Yup. So, for people listening, you got this, it increases the amount of a neurotransmitter for thinking and it decreases the enzyme that that destroys it.

Matt:

It's the focus molecule.

Dave Asprey:

Yeah. Unless you have too much, it's the teeth grinding molecule.

Mark Alan Effinger:

Yeah, yeah. There's a Gaussian performance curve with all of these neurotransmitters, right?

Dave Asprey:

That's important. Define Gaussian for people who aren't math nerd.

Mark Alan Effinger:

The bell curve. Everybody knows a bell curve, right? So you get too little, you get nothing, too much and you grind your teeth or you get foggy or you get pissed, or you're just completely ineffective and you fly off the wall, or ...

Dave Asprey:

Or you die.

Mark Alan Effinger:

Or you die.

Dave Asprey:

That's what a lot of insect poison does. When you spray bug poison on a bug and it starts twitching, that's an acetylcholinesterase inhibitor. You don't want to take the whole bottle of huperzine, right, or Tylenol. Because Tylenol is very bad for you, right?

Matt:

But that's the key point, I think, we can get into some of the issues. A lot of nootropics rely on brute force. They hammer one receptor or one pathway and they just push it to the max which has negative consequences, receptors downregulate, you can have more side effects. So, I think, one of the things that Mr. Noots does, Mark, is well, let's hit a wider variety of pathways to increase synergy, instead of just hammering one with brute force. And one of the reasons we're called biological optimizers is because it's about optimal. As a former addict, I thought, and I was hardwired to believe that more is better. And now I know better and optimal is better.

So, it's about really finding the optimal dose for each person. And that's why we're all about customization, personalization.

Mark Alan Effinger:

Huge, huge.

Dave Asprey:

It matters. And if you go back to this, guys, in 2002 or '03, whenever that guy was going to business school. I was at Wharton. And we didn't have a thesis but the hardest class, you had to come up with this whole mathematical and detailed analysis and a business plan for a startup and an entrepreneurship thing. And I wanted to make a product called unfair advantage, which is going to be a cognitive enhancer that you sell to parents of college students. And the idea is, look, you want your kids to

graduate, and you know they're going to go party and all that stuff. So, why don't you get this stuff for 50 bucks a month. You're spending \$50,000 a year in their tuition, this is going to get your investment to come back. It's actually a very high ROI for parents, like make sure little Johnny can think in class, even if he had too much beer.

And I went through all of this market analysis. And what I found was that the nootropics on the market, at the time, were pretty much all what Alpha Brain copied, right? And all it is, let's raise acetylcholine via every mechanism we have all at one time. And of course, I tried doing that stuff back then. And I actually did get the nodding in my back, the jaw tension, because when you're young, you can way overdo acetylcholine. And you need more of it as you age and you need more of, if you're taking certain smart drugs, which is why the custom approach is really interesting to me. And I looked at I just kind of scratch my head, I'm like, "Why? Why is it that you go to the thing at the grocery store that has all the cognitivists and they're all pretty much just the same stuff that Alpha Brain copied, which was all from a chemical Life Extension Foundation.

They had this original formula called Cognitex back in the early '90s. And that came from Durk and Sandy, Durk Pearson and Sandy Shaw, the original smart people. You guys wouldn't know this unless you're in industry, but those guys were around in the '70s and '80s promoting smart drugs. They planted the seed that germinated and I hope to water it a little bit along the way. But this is going on 50 years of cognitive enhancement. And the original pharmaceuticals is from 1956, if I remember right, which is piracetam, which is something that is a drug made by Sandoz Pharmaceuticals. But in the US, it's not a drug. It just doesn't exist so you can buy it. I don't know how to explain that. But that's how it is.

Matt:

I've got a cue up, Mark, here to talk about, again, the mother of racetams.

Mark Alan Effinger:

Yeah. It's so funny, Dave, that you said that because Durk Pearson and Sandy Shaw were my big inspiration. In the late '80s, I moved into the back of a Health Club and I lived in a garage that backed up to the aerobics room, so.

Dave Asprey:

Did you do jazzercise?

Mark Alan Effinger:

Yeah, when they were the thong outside of their spandex, right, it was awesome.

Dave Asprey:

If you were alive in the '80s and old enough to remember it, it's one of those things you can't unsee.

Mark Alan Effinger:

Yeah. Well, so outside of glutamine, there's a master amino acid called pyroglutamic acid. And pyroglutamic acid is an incredibly effective short term nootropic that you can't take during the day because the load it puts on your system as it's breaking apart into the various chemicals that then become the neurochemicals is pretty heavy. And it takes about six grams of it to get any kind of potentiated result. We started with a lot of that, a lot of that, and then we ended up looking at more herbal extracts. And then, we found that there were interesting ways that during the extraction process

of herbs and the conversion process of pyroglutamic acid, you could get them to weave each other together and create these bonds that would go in various directions.

You could get it to lean towards acetylcholine. Or you get to lean towards, right, one of the other key neurotransmitters like GABA.

Dave Asprey:

What evidence do we have that plant extracts are effective for cognitive enhancement?

Mark Alan Effinger:

I mean, if you go to NCBI. NCBI, it's a public database, PubMed ...

Dave Asprey:

Like PubMed.

Mark Alan Effinger:

Yup. Yup. It's huge. Outside of the fact that they've been used prolifically, especially in Asia and in Europe for centuries ...

Matt:

I mean, Russians are masters of ...

Dave Asprey:

The Russians are some of the best when it comes to adaptogens and cognitive enhancement, mostly because they're willing to experiment on people. And if they die, it's like, oh, too bad vodka. And they just move on. But I'm like, hats off. But here's the evidence. There's a certain herbal extract you make it with hot water, and you run it through roasted and ground up plants. And it's consumed by 90% of people. I'm talking about, of course, coffee, but there's tea. Right? These are herbal extracts. These are hot water herbal extracts. Or nicotine, you can extract it from tobacco via various mechanisms. And holy crap, it's the most studied smart drug out there is nicotine. It increases typing speed by 15%. So, if you're listening to this going, "Plant extracts?"

Dude, there is so much evidence without ever going to PubMed that we are hyper responsive to some plants and not others. In fact, some plants will kill you. And that's also part of the story. So, I'm talking sarin nerve gas, which is a vegan protein. So, watch out for vegan proteins. But this is one of the things where I want everyone listening to just say, "Okay, I admit to myself that it is possible for plant extracts or other compounds to improve cognitive function because it's abundantly obvious." You can't deny it, eat a chocolate bar and see how you feel. Like, "Oh, I modified my neurochemistry." Okay, so I'll get off my soapbox a little bit here. But there are people who still think this can't be possible, and they're actually drinking coffee while they say it's not possible.

And so, I want us to just be done with that. Okay. Let's go back to something like mental endurance stuff. Okay. How does that work? Because for me, that was what I was lacking. And how do you get that? What's the magic?

Mark Alan Effinger:

So, some of it is oxygenation of the bloodstream, right? I think you get that. One of the things that made the biggest difference when I started stacking these things, and I'll get into a story in a bit about how this kind of the last phase of nootropics came about back in 2008 to 2012 for me. But when you start stacking components, you have an adaptogen, right? You've got a choline donor, you've got your nootropic, whatever your core nootropic is going to be, right, you get an antioxidant. And then you might even have a component that's going to give you a stimulant effect.

And you start stacking those in the proper proportions, where you're going to be at least clinical in your dosage rather than subclinical, which most of the things you see off the shelf are subclinical in their dosage, your clinical in their dosage and you take advantage of the potentiation effect that you can get when you start combining a couple of interesting compounds together and they start synergizing. And they start accelerating the benefits or they extend the benefit, or they do both. When your body doesn't have a load, if it doesn't have an oxidant load, an oxidation load, if the adaptogens are effectively reducing stress levels, stress hormones, inflammatory conditions, then the nootropic works significantly better.

And you can create a compound effect by doing that. You're not using more nootropic, you're reducing the load on your body of all the other things that keep it from performing. It doesn't have to fight toxicity in your body, inflammation, right, the other factors. Suddenly, the nootropics stand out and they go, "Hey, we can play."

Matt:

One more comment too, which is timing. I'll just use myself as an example. Because during COVID, I was in Panama, we had for five months the hardest lockdown in the world, four hours of freedom a week. It was roadblocks, if you're outside of those four hours, you're going to jail. And I just decided, "You know what, I can't control that, I'm just going to get hyper productive." And that time, and this is like right before Mark and I met, I always start ... And I'm driving hard. But at 2:00, 3:00 p.m., my performance would start dropping off. I could push myself to 4:00, 5:00 p.m. but the performance wasn't there. I was just kind of operating on fumes.

Met Mark, started using noots, now I can go to 6:30, 7:00, 8:00 and maintain that peak performance. I was able to write a book which I had never been able to do before. Dave was kind enough to give us a foreword, which is From Sick to Superhuman, Biological Optimization Blueprint. And, again, the difference in mental endurance, mental performance, for me during those tough times was a game changer, I mean, it was double. But back to timing, if you take nootropics, again, there's that Gaussian curve, that performance curve, which will last anywhere from four to eight hours.

So, if you get energy in the morning, maybe you don't need nootropics at that time, and just tend to crash out in the afternoon. Well, around 12:00, 12:30 or 1:00 p.m., take your nootropics and you're going to be rocking all afternoon long.

Dave Asprey:

It's true. I used to have serious problems in the afternoon. And you can hack those problems, seriously, with just intermittent fasting. You can learn how to eat, you can fix your cell membranes, and you can get stable blood sugar, so you can have your average performance. Okay. Average performance is better than crap performance, which was my life when I was obese and had blood sugar regulation issues and mitochondrial issues. But there is another level beyond average. And like step one in the way I look at it is get your mitochondria working. So, the blood has to be in the brain to make electricity.

But step two, three, four and five, around instead of having an average afternoon, where you know what, I'm actually going to work on my book at 2:00 in the afternoon, which most authors would

never do, because you can't turn on creative juices. They're effortlessly at your fingertips when you have the right cocktail of cognitive enhancers that are a part of things. The thing that made me want to do another episode with you, and to expose Mr. Noots, it was really because you have a very thoughtful way of saying, "Okay, it's not going to be just one thing." And I'll also tell you guys, I have publicly said over and over, don't take stacks of nootropics to start, because it's not going to work for you. It just won't.

Even the stuff that I make or that I made that I formulated for Bulletproof. I'm not sure what they're putting in there, whether it's the same as what I made or not, like I said, they won't tell me anything. That was one of the things that wasn't a stack that relied on any of the pathways that you would find in one of the generic things like that. But some people need to push the acetylcholine pathways, my deal is that's already been handled. But what you're doing is you're saying let's look at all of the pathways, let's look at who you are, where you are, what benefits you want. And I recognize the algorithm, because it's the same one that I have for Upgrade Labs.

The Upgrade Labs is my replacement for the kind of things that you would be doing at the gym with some extra recovery where, okay, did you want to muscle, bone, cardio, or recovery? But how do we get to it in the least possible time? And so it's asking the question, where do you want to go? And where are you now? And then, and then the right pieces of tech. I've never seen a single nootropic company who went to tackle that because frankly, it sucks. But there's like surveys, daily feedback, and then tuning of the stack. What I want to know is when you guys were putting this together, and when I say the stack, it's several different compounds that are custom mix, like powders and liquids and all. And I've tried it and I very much notice a difference from it.

And for me to test it, I had to quit doing a lot of stuff that I normally do so I could do like an A, B test. Definitely, it works. So how do you know, though, how to customize the stack? I mean, yeah, the surveys are good, but how much science is between the survey, and the tech?

Matt:

Can I just give the overarching framework? So we divide the archetypes into two buckets. One is the CNS, central nervous system. And we have ways of profiling whether people prefer being parasympathetic or they prefer being sympathetic.

Dave Asprey:

What's an example of someone who prefers to be parasympathetic?

Matt:

They're chill, they're relaxed. They don't like stimulation. Some people don't like the feeling of euphoria.

Dave Asprey:

So, these are like yoga teachers and cat ladies?

Matt:

Yeah, yeah. That's pretty ...

Dave Asprey:

I can't believe you say that. That was so judgmental of you.

Matt:

No, but they're great people. I love cat ladies. I'm a cat person myself.

Dave Asprey:

People are maybe a little bit introverted, but not always. But sometimes it's okay.

Matt:

And it's amazing. By the way, when we get the feedback from all the stacks, is we know right away, okay, this person is parasympathetic and loves that. Some people are naturally parasympathetic. And when you give them enough stimulation, they go right into that apex performance. So, that's really important as well as part of evaluation. That's bucket one. And the second bucket is neurochemicals. This is a great task, it's a free task. You go to bravermantest.com. And it's a very in depth test that helps tell you which neurotransmitters you're dominant in, and which ones you're deficient in. Now, if we break down states and if we break down performance, you can break down the various neurochemicals that are involved, including the stress chemicals, noradrenaline, adrenaline, cortisol and testosterone, estrogen, those are also part of it.

But when you look at anandamide, serotonin, dopamine, GABA, acetylcholine, those are your main ones. And we can manipulate those, we can hack those with nootropics. So, it really depends what am I trying to achieve? And what state do I need to be in in order to maximize my performance in that moment? So, if you're trying to write a book, yeah, focus savagery is absolutely phenomenal. if you're going to increase verbal fluency, there's other stacks. But that's how we designed the questionnaire, the feedback form, we segment people into these various, again, CNS buckets and neurochemical buckets. And then, we make the adjustments based on their feedback.

But I'm going to cue up Mark and Mark can elaborate a little bit more.

Dave Asprey:

Before we get there, I just want to point out for listeners, you might have read Eric Braverman, his book, *The Edge effect*, and it's ...

Matt:

That was an inspiration for me.

Dave Asprey:

Okay. It's a fantastic book. And it's a little bit dated now. But he's a medical doctor and wrote a book about just what you described there and has the quiz that says, "Okay, and what is your edge," and it turns out, they're different. Just like you could have your Myers Briggs thing, there's a neurochemical version of that, which is what Braverman came up with. So, it's cool that he is an inspiration to you because his work is valid and has stood the test of time. So, you've baked his thinking in on this and that helps whether you don't want to overstimulate someone who really likes being parasympathetic. And then, if you have someone who's sympathetic, this is like the extreme skier, what, Steven Kotlers, of the world?

Matt:

We're breaking down various states, for example, the neurochemistry of an A hole is typically high dopamine, high acetylcholine, high adrenaline, and let's just say high testosterone. And cocaine will get

you there. Adderall will get you there. But if you start adding other neurochemicals like serotonin and GABA, those help you connect with people, it help calm you down. So, you become a better leader. And that's some of the many, many states you can activate while hacking neurochemistry. I'm serotonin deficient, I knew that when I did the test, it confirmed. It same through with Gabba.

So, for me, it helps me become more extroverted when I want to. It helps me connect with people when I want to. So, it's not just hard driving performance, but you can actually hack your social skills and desire to connect with people, which also anandamide is a marvelous molecule for that too.

Dave Asprey:

Anandamide actually comes from tobacco. Is that in there?

Matt:

No. By the way, here's a huge, huge ... I give you praise on my IG today for your Bulletproof coffee. And there's an application of the fat coffee that I've never heard you talk about. We give a book away with customized nootropics. We talked about it there. And that is that the facts and it's a perfectly designed delivery system for fat molecules. I was reading the research last year, 800% more CBD. Some research just came out of quercetin, 30% more quercetin through the bloodstream. So, any fat soluble molecule that you take with fat coffee, you're going to absorb way more of it. And that's also true with the nootropics. So I just want to give you credit and kudos. And of course, when you do fat coffee versus normal coffee, that's a better delivery system for the caffeine. We feel it. It lasts longer, so the body will uptake more of it, but in a more steady stream so you won't get that spike like you typically would with many other things. So, just massive kudos to you, Dave. And it's a very powerful thing.

Now CBD lowers the enzyme that breaks down anandamide. So CBD can also be used as an anandamide activator. And by the way, it works really well when you add it to, of course, fat copy, Bulletproof coffee. That's one of my favorite bases and then you add some of the herb products like Brain Flow or Apex or Focus Savagery and you just get this amazing state where you're energized, you're focus, your heart is open. It's everything. You just feel like the ultimate version of yourself. And that, to me, is really what it comes down to. The nootropics are about eliminating all bad days. I don't have bad days anymore even if, let's say, I had bad night's sleep, I went to bed too late, whatever it is, I can hack that in 15, 20 minutes upon awakening, get right into the zone and have an awesome day, whereas before I'd be struggling and fighting.

Dave Asprey:

It's one of those things, and I think most people listening can understand what we're talking about. Just thinking about that time you're hung over, right, you woke up and like "Oh." Well, a very large percentage of people wake up some of the time or most of the time feeling hungover without having had more than a glass of wine the night before. And it's because of what they eat. It's because there's other biological stuff going on. There can be endless reasons. And as someone who had chronic fatigue syndrome and fibromyalgia and toxic mold, and people were diagnosed with toxic mold as Lyme disease all the time, but it's usually mold derived, all that stuff. One of the reasons I cared so much about cognitive enhancers was that I felt like that most of the time, and I needed it.

But once I got past that, I can wake up and have no coffee, and I'm still dialed in, unless I do something wrong. And then just like you, within 20 minutes if you know what's going on, and Chris, my producer is like, I've had a couple of times where man, I got a show like, I'm not feeling good, or I'm recording eight hours of content in one day. Try to teach for eight hours a day, you guys have probably done it. It's hard, right? Well, without having the enhancements, it doesn't work. I'm like, I'm off. And I'll

take some stuff. And then like you said, 20 minutes later, you're back in the flow. So, you listen to this, guys, that's entirely possible. And I want you to think about this. If you're having a crappy day, it's actually your fault. It's one thing if someone broke up with you or you got fired, okay, you're going to have a crappy day, that's normal.

But if you just wake up and you're like, "I can't bring it today," you actually just don't know the tools. And I couldn't bring it so much that I spent hundreds of thousands of dollars just like you did where you have to get on top of it. But with tools, it's easier. So for me, yeah, I spent a long time making up my own stack, like a long time is in the 10 plus years, what you guys are doing is you're saying, "Let's start with, what's your typical dominant neurochemistry, let's build a custom stack based on that and let's tweak it every month, based on the effects you're getting," which is such a time saver. So, the idea is anyone listening should be able to dial it in. And by the way, it's not exactly cheap compared to a \$20 bottle of 1980s cognitive enhancer from your favorite podcaster. I'm just not talking about one in particular.

But what you're going to find is that if one or two days of the month where you would have been erect, you're actually at a 9 out of 10. It's priceless. It's actually priceless. And for me, it was. And I can tell you, I would not have written my books, I would not have finished business school, I would not have six companies in my portfolio and be advising dozens more. Upgrade Labs wouldn't exist. I wouldn't be CEO of it if it wasn't for this ability, because I have a lot of those days, at least I did. So, I want to thank you for making it a shorter window for people to get to where they can feel like themselves again, because that's what stood out for this in a way I haven't seen before.

Matt:

Yeah, I want to cue Mark up to talk about some of the stacks because they're just brilliantly designed. So I was working on stacks and then I met Mark and I had the feeling, okay, here's a guy that I'll never catch up to. Here's a guy that's just decades beyond where I'm at and probably ever will be in cognitive stack design. And also, his background in chemistry, it's the extractions. So, when we talk about plants, sometimes you want to eliminate certain things from the plant because they're not helpful. So, we can literally achieve in one capsule, what some of our competitors can't do with seven. Okay. So, again, I've been playing with nootropics for a long time. And by the way, Dave, you were a big inspiration in that.

Then, yeah, sometimes you have to take 7 or 12 capsules of other brands and you would feel something. But now, because the extractions are so good and clean and concentrated and then potentiated with the rest of the stack, we can achieve, again, with one capsule what others can't in many. But there's nine different core blends that all have specific purposes. And, Mark, maybe you can go through those and talk about kind of the design and what they do.

Mark Alan Effinger:

So, one of the original things that we discovered early on in doing nootropic stack development was that people were arriving in the morning, right? They're waking up in the morning, and like you said, they were in a cloud, their performance is very low, hormones are out of whack oftentimes, or they're in a different surge than they need to be, right? So, the first thing was how do we get the brain so that it's prepped, ready and clean for that? So, we developed this thing that we called Mental Reboot, we've had an AM and a PM version.

The PM version is an oral capsule. And what it does is it takes advantage of the fact that your brain size changes at night when you sleep. And when it does that, it opens up around the capillaries and it flows in cerebrospinal fluid that detoxes the brain. Right? So ...

Dave Asprey:

The glymphatic system.

Mark Alan Effinger:

Yeah, exactly. Right. And then it gets rid of it. That was a really key thing. The thought was, how do we potentially aid that process? How do we accentuate that process so that we can use the body's own natural detoxification process and amplify it? So, we did that. And then it also helps to reduce tau and beta amyloid protein buildup as well. So, things that lead to permanent cognitive decline, we worked really hard to try to get rid of those. And then in the morning, now you get this beautiful clean palette to work from. So now you've got a sublingual, it's a little capsule. You tap it, upright, pull the top off, pour it on your tongue, tastes great.

And what it does is it does kind of the same thing, but it provides a baseline level of choline precursors, so your body can actually say, "I want to create more choline, I've got this available to me. Now, what are you going to do with it?" And so then you can ping your receptor and say, "I want more choline and you've got it available," but it does a lot of other things as well. There's methyl B-12, right, so methylcobalamin, just much more available and a couple other compounds that really helped that process. And then, an extract of the *Celastrus paniculatus* that is a water extract of that which is unique in that characteristic that dissolves as well. And so that gives you this primary and key nootropic function, so that you've got the choline donor, what happens when you're taking a nootropic and you don't have enough choline in your system is it'll start sucking choline out of muscle and you'll feel this pain in your neck that turns into a headache. So, really important characteristic of having the choline donor there.

So then you want to start out with your Bulletproof coffee, right?

Dave Asprey:

Of course.

Mark Alan Effinger:

Right? You're doing that. Then you want to accent that. And so, we have a thing called Nectar X. And so, Nectar X is a very hardcore. And what I mean by that is, this took 3000 prototypes over four years and what happened was my former wife died of an oxycodone overdose. And it seemed to be intentional. And she got hooked on it. We were all natural health. Our three kids were born at home, right, all natural home births. Last one in front of the fireplace. And that last one, she tore a little bit. They gave her four oxycodone, the midwife did. Just because it's safe, right, four ...

Dave Asprey:

Four? That's a pretty hefty dose. Wow.

Mark Alan Effinger:

It was going to last for a week.

Dave Asprey:

Okay.

Mark Alan Effinger:

Right. So, she'd heal and be cool. And she fell in love with it. And there was the path from there to, that was 1998, in 2008 is when she quit life. Dave, when you see somebody that is absolutely beautiful and kind of talented, and the mother of your children and you've got an emergency personnel, a first responder, asking if they can put a six-inch needle into her heart to try to restart that thing.

Dave Asprey:

Wow.

Mark Alan Effinger:

And there's a halo of oxycodone and oxycontin bottles, a gallon of wine and yeah, and you're just going, "Who is this person that I've loved for decades, and now it's become something else?" And anyhow, it's really hard on me. So, you get really pissed. In fact, at that time, I grabbed my iPhone 3G and I tweeted the fact that I'm watching this happen, because it was the only thing I knew how to write down at the time. It was my notepad. And a good friend of mine out of Bellingham called me and said, "Dude, let's take care of this." My thing was how do I get the addictive personality ... I can't beat the addictive personality, but maybe I can give something that helps addicts have a better experience in life, right, or to get off of their addictive thing by having such high performance that they're no longer following that little lure, right, the carrot that's dragging them.

So, the idea was, if I could get you to think clearly, then you're going to make better decisions. If I can get you the energy you need to execute on those decisions, you're going to have some success. And that's going to create an upward spiral, right, that you're going to follow. So that was the kind of thing. So at the time, I owned a brainstorming software company with the founder of Century 21 Real Estate called IdeaFisher. And we had about 400,000 customers and I had a pretty good group of those people that I could send samples of crappy tasting powder to that they would give me an honest evaluation of whether it improved their cognitive performance.

Dave Asprey:

I have some friends like that. I know what you mean.

Mark Alan Effinger:

Oh, yeah. Give it to me, man. That is actually one of the great examples of that.

Dave Asprey:

Like, "Oh, that was awful. But I feel great."

Mark Alan Effinger:

Yeah. Yeah, so we started doing that. And so I kept sending them samples of this stuff, these different people. And they kept giving me feedback. And so we started building a database of what was happening. And we got about a 30, 35% response, positive response. And then we got the rest of it was a combination of just flat or negative. Until we started looking at their physiology and neurology. So once you started saying, what do you eat? When you wake up? How often do you work? What do you work? How often you work? Right? What's your exercise routine? How healthy are you today? What are your goals, your ambitions and goals in terms of life? And then, how do your neurochemicals work?

Then, that radically changed the profile. Now, we could say, "Oh," the big epiphany was, "Hold it, if I change the amount of the choline donor, the nootropic, the antioxidant, right, the adaptogen. I

change the ratios of those and maybe even add some elements like a pro hormone like a DHEA or pregnenolone or something like that, maybe I could get a different performance profile. And I could write it down, and I could match it to their body type or their physiology and neurology. And then, I could find other people within my database that match that, and I could say, "Here, try this, it might be closer." And they would say, "Yeah, that's closer. I would also like to have this feeling," or "I'd like to have this event," or "I need to be thinking on my feet." "I'm going to be in a four in front of a whiteboard for two and a half hours. I've got to be a rock star. How do I do that?"

And then, we started really figuring out this piece. And when I traveling around the US teaching social media on ... I'm getting big time CEOs on how to write their life story. They would always start at Stanford or Wharton or. And you say, "Okay, that's great. What happened when you were eight, when your dad let loose on you because you were underperforming?" Right. That's the story. And so, in going through there, I was hanging out with these really smart guys, and we would be teaching these on the stage. And they would come to me in the morning and say, "Dude, I feel like shit. I was up until 4:00 a.m. partying with one of our clients. How do I perform today?" And I had a tackle box of these different powders and pills. And I would formulate stuff for them.

And so, it was this immediate feedback, I would know whether it worked or not. One guy was allergic to bees, bee stings. And I gave him about 100 milligrams of niacin. And he's calling 911 and his wife, saying, "Honey, it's the end."

Dave Asprey:

Niacin makes you tingly and flushed. It's not a bee sting. But, yeah, I tell you that I was maybe 23 the first time I took niacin and I threw away the vitamins. It was in a multivitamin because my whole body turned bright red and I felt like I was going to die. So if you don't know what you're doing, yeah. That's funny.

Mark Alan Effinger:

Yeah, it's all. So then I was hanging at a rehab center every couple months and saying, "What's the problem?" They'd say, "Well, it's expensive. It's painful. It takes a long time. It's embarrassing. And I'm going to be addicted to two, three, four meds when I'm out of here." So that was the experience of recurring addicts that had come through. And so, we were building stuff on site and saying, "Try this," and seeing people go from literally insanely crazy out of their mind on meth or similar to stable, and then 24 hours, 72 hours later, feeling great feeling the best they'd ever felt in years.

And when you take somebody from the drug fueled high to the performance high, right, that's a completely different outcome. And your ability to interact with society, the ability to do things that are important, and then your high becomes it's not the drug anymore, it's the performance. It's what cool things can I do, right? What can I do in my job and those kind of thing? So, that was Nectar X.

And then, we got into Brain Flow. So, I wanted something that was a parasympathetic brain enhancer, which meant that it's going to operate when you're chill, right, or it's going to operate and bring you to a chill state. But it's going to keep you at a high cognitive performance level at that. So, it's not the chill, like, I just want down to six pack, or to take a bong hit. It's the chill of having high performance and having cognitive performance without the edge of a high stem. So, really important. So, this is Brain Flow.

And then that led to Upbeat, which was, of course, when you're working with addicts, you're also dealing with depression and manic depressive cycles, things like that. And by the way, a lot of times, these were a solution to a pharmaceutical problem, right. I mean, I think you're one of the guys that said, "Your body is not looking for this pharmaceutical. It's not going, oh, I have a deficit of this

pharmaceutical." It's looking for the natural solution or the holistic solution to accomplish that. And so, in the same way, each one of these had a parallel in society somewhere in a pharmacological product. So, Upbeat was, I didn't like the way that SSRIs worked with people ...

Dave Asprey:

Yeah. They mess up a lot of people.

Mark Alan Effinger:

Oh, dude, man, zombie zone.

Dave Asprey:

They work for some. Just to be really clear, there's nothing wrong if you tried a bunch of stuff and you fixed your diet, and you're getting sleep and circadian biology and it changes your life. Good for you. That's not 90% of users. But there's nothing shameful about using one as long as you've done your work first.

Mark Alan Effinger:

Absolutely. And I think it's really important to understand that. But in studying how the calcium ion cloud surrounds the neurons, and when you're doing an SSRI, the neuron pumps that are pumping the serotonin back and forth between the neurons, it's hardening those neuron pumps. And over time, those pumps suddenly have to pump more and more. That's why you increase your dosage. And the secondary problem with that is what's called downregulation. So, you're suddenly dealing with the fact that your serotonin stores have been signaled because it's circulating serotonin in your system. Your serotonin stores are going, oh, I don't need to rebuild this. You got enough serotonin even though it's just recirculating. It's tricking your neurology into thinking it's got enough available serotonin.

So suddenly, when the pill quits working, right, or when you're done with your dose for the day, your serotonin levels crash and you've got to find a way to rebuild those. And that means the pill the next day. Same thing happens with Adderall. Or I should say ADHD drugs. And, again, they can be very effective for the right people. They're super effective, and it can work for a period of time. But there are alternatives that actually are holistic and they actually improve your brain's performance, rather than jacking it in a way that might be radically unbalanced. When I do Adderall, I become the asshole, right?

Dave Asprey:

Yeah. Adderall makes me want to punch people. That stuff is horrible. I took it for a little while before I had found Provigil back when I was trying to not fail at a business school.

Mark Alan Effinger:

Yep. Yeah, exactly. Exactly. Yeah. And it does work for focus, but it also doesn't work for human connection at all.

Dave Asprey:

Yeah.

Mark Alan Effinger:

So, I created Brain Flow, or I'm sorry, so Upbeat which was essentially all the precursors necessary to be able to get really good levels of serotonin without over serotonin, no serotonin syndrome stuff, right.

Dave Asprey:

Just describe that for a minute because a lot of people don't know what serotonin syndrome is. And if you're using psychedelics, you might want to know about this, so just go off on that for a little bit.

Mark Alan Effinger:

So, if you proper on this, serotonin about 90 to 94, 95% is made in the gut. And anywhere from 6 to 10% is made in the brain. And there's the vagus nerve and some other components that trigger each of those to align. So if you crease serotonin in your stomach, you're going to get a relative increase in the brain as well. But the challenge is when you get too much serotonin, you start killing off blooms of brain cells. So, you start causing serious problems in that effect. And you can even cause death with an excess of serotonin. And it's very painful, the headache. If you've ever taken mushrooms, any of those and an SSRI or similar serotonin resource to excess, you'll get a headache that it's a bad trip, man.

Dave Asprey:

Yeah. It's a bad trip, but I mean it'll raise your blood pressure. And there are people who'll start shaking if you get an excess of this and it's a genetic receptor thing in the brain. And, I mean, the cure for that is actually IV benzodiazepines. If you know what's going on and you go to the ER and say, "I'm having serotonin syndrome. I took something that raises my serotonin dramatically, do this and I'll be fine in 20 minutes." How do I know that? Because my wife was a drug and alcohol addiction emergency medicine specialist, so let's not talk about that. I mean, that's a serious thing. And so, if you're listening to this going, "I took a plant medicine one time and it almost killed me." Well, it actually might have and you probably have too much serotonin and you can listen to these guys.

And then, when you are formulating your stack with them, then if you guys know that you actually dial down this stuff like 5-HTP, so you don't need it. I tend to not need 5-HTP, I took it for years because I thought it was going to be really good for my brain and serotonin. But serotonin was pro inflammation when you have too much of it. And if you look at me on the Braverman thing, it's funny. I'm almost the same for dopamine, acetylcholine and serotonin. They're all within a point or two of each other, but I'm lower in GABA. And half of the world is higher in GABA. Those are like the accountants and administrators and bureaucrats. I don't know. They're not me. I don't know what those people are.

What do you do if someone is actually one of those, okay, I have a problem with serotonin where it's already extremely high. What would you do in a stack for them that's custom?

Mark Alan Effinger:

We'd obviously reduce the serotonin agonist or the serotonin. And then try not to get it to recirculate or basically increase the amount of the enzyme that will break down the serotonin, so it won't last as long. And that can actually be a really comforting feeling for people that have an excess of serotonin they're running. And by the way, enzymes, which is an area that BiOptimizers is key. Enzymes are so critical in so many processes. We have a lab in Bosnia, where we do extensive research and the number of enzymes and the efficacy of enzymatic co-processes in the body are critical to the performance of just about everything. So, yeah.

Dave Asprey:

All right. It's good that you're doing that level of research because some of what you're doing around getting stack for the right brain, this is really cutting edge stuff. It's pretty cool. You guys talk about something else that's actually not in your formula or in your different formulas, but something that's in kind of the guide book that comes with it that is worth mentioning. People think that I'm anti-sugar because we don't eat sugar all the time. But when people ask like, "Okay, if you really want to nail a migraine, or you just need to have the best day of your life, put glucose, which is half the sugar molecule, but the kind of [inaudible 00:57:52] put it in your Bulletproof coffee, don't do it every day, it's going to increase advanced glycation end products, but your brain will be really freaking happy with MCTs in glucose galore.

And you're going to have the best day of your life and then chew a little bit of Lucy gum for some nicotine when you're done. And all of a sudden, like, "Whoa," and of course, you take your nootropics. I aced the bar exam and the MCAT on the same day because I had that day and you might crash later. But you actually talk about microdosing glucose as a performance enhancer. But you recommend fruit, which isn't high in glucose. So tell me why you guys are like fruit versus just give me a scoop of glucose?

Matt:

Well, a lot of fruits are 50-50, right, 50 glucose ...

Dave Asprey:

Yeah, that's what glucose is. Yeah.

Matt:

I mean, your body's going to break it down either way. But yeah, we're talking about microdose like 10 to 20 grams is typically enough. And again, like right now I'm drinking Nectar X. I took about half a cup of strawberry juice, fresh strawberry juice, and mixed in. So, I'm just streaming in a bit of glucose. I talked to Dom D'Agostino. He's a keto guy.

Dave Asprey:

Yeah. I think he was the first 100 guests on the show going way back. Yeah.

Matt:

Yeah, Dom is awesome. But he's a big fan of maintaining glucose even during the workout, like 40 to 80 grams. If you're training legs, 80 grams, you're going to scorch that, like it's just gone. Your body is just going to burn it in real time. So, it's the same thing with your body, you get 20% of your energy normal, just normal days is what your brain uses. But let's say you're doing a 40 years of Zen, which I've done five times, I think you go to like 40, 50%. The amount of calories, monitored it, I need another 1000 to 1500 calories a day and I'm pushing my brain that much.

Dave Asprey:

That's why there's a chef there, an executive chef, and that's why it's not a zero carb kind of a week whatsoever because you have to have it. I found out you can do two and a half times more neurofeedback if you've got your MCTs and some carbs. It's that big of a deal because it's like running a marathon every day. And you're saying, for your microdosing glucose, you're not doing that every day, though, just when you want to hit a certain peak state? Or are you doing that every day?

Matt:

Yeah, exactly. When it's the most demanding. Like, for example, right now, it's a podcast, I want to be hyper focus. So, yeah, a little bit of glucose, 20 grams. It does wonders.

Mark Alan Effinger:

Yeah. And nootropics speed up mental processes. The brain eats glucose. The brain loves glucose. Yes, ketones work. But the brain loves glucose. And yeah ...

Dave Asprey:

The neurons. This is what I believe is going on there. The neurons, demonstrably in studies prefer ketones, even in the presence of glucose. But the astrocytes, the other half of your brain that does all the pruning and organizing, it wants glucose. And I think when you have both, that's not a natural state. You cannot do that in nature. But when you get them both, both parts of the brain are there and like, all right, I got this. It's pretty cool. And if you're doing that in conjunction with the nootropics that you guys are talking about, well, certainly getting them into the brain using the fat, right, that's a good thing. With Bulletproof coffee or butter, or eat a steak, whatever.

But it helps to have the fat to get it in. But then if you have the glucose, and you have the MCTs, assuming those were present, you end up with this magic state where the compound itself is present. It's calling on the cell to do something, and the cell has enough energy to do it. And that's when it starts to get really interesting. But if you say are undernourished, and you take these things are going to turn up the volume and put you in god mode and my brain is going to work so well. And the brain is like, "I can't make enough electricity to do this." It doesn't work. Right? And so, I love it that you're willing to talk about that because in a certain part of the world, the keto bros, is like, if you have one gram of carbs, you're a bad person.

It doesn't work for the extreme states of cognitive performance. It does for some of them some of the time, but I just love it that you're willing to go out there and say that. And I'm the last person to say you should be eating keto all the time. I talk about how that causes problems for me and for others. Some people say Bulletproof equals keto, it's like no. So, kudos to you for putting that in your book. And we've talked about Brain Flow, the different formulas. There's nine base blends and each of these gets customized?

Matt:

Yeah. There's just a few more, I'll take Power Solution. So Power Solution is probably the most sympathetic one. It's great for gaming. Full disclosure, one of the things that happened after being locked down for five months in my home is my friend gifted me a PS4 and said, "Play Call of Duty with me." So, guess what happened? I started gaming. I grew up a gamer and I stopped gaming for about 15 years.

Dave Asprey:

Like Doom and Duke Nukem, I was like if I keep doing this, there will be nothing left.

Matt:

Call of Duty, first of all the bonding, you're playing in a team and it's such a high performance. It's all central nervous system, fine motor skills, like there's no gimmies in that game. It's phenomenal on that level. But Power Solution, I give that to my gamer friends. It's a game changer. I mean, it is very

sympathetic, which of course, we can dial up or dial down. It's a great pre-workout. It's what I use on leg days like tomorrow. So it's a really powerful stack. Mark, any quick things you want to add to that?

Mark Alan Effinger:

No, no, you nailed it. And it was developed actually as a gamer stack. So, it has those characteristics, right? You want to be able to have peripheral thinking going on. Right? So you're creative as you're problem solving in real time, while killing a bunch of people in line.

Dave Asprey:

One of the things I was a little concerned about, okay, I know what I'm doing. I can read the ingredients deck. I know what everything does, you bet. So, I have an unfair advantage there. But there is a manual. It's like, okay, take this at this time and this at this time. And there's a learning curve for this. But ...

Matt:

This is a system and there is a learning curve. Even myself, I was an inexperienced nootropic user. It took me probably four months. Now we've boiled it down and we built the app. We built the book in order to systematize the learning curve. So yeah, this is for high performers. Tiffany Haddish was at my house a few weeks ago. This is what she's using. We've got the top agent in Hollywood. She's awesome. I think she was on your show. We got the top top agents in Hollywood on the stack. This is for people that really want to maximize performance. And it's not cheap. And again, if you're an entrepreneur, it's a no brainer, no pun intended. If you get 20, 30% more output as an entrepreneur, it's a game changer. It's exponential.

I am a recovered drug addict, alcoholic, I crashed and burned when I was 32. And Dave, you're a big part of my brain recovery. I started reading your blog back in the day. I was one of those guys that my memory was shot. Of course, I'm sober, but it's not like my brain came back, I could work 10 hours a week and 15 and 20. Twenty was the most I could do. And then, I started optimizing my brain with lion's mane and fish oil and photobiomodulation. Then, I started doing neurofeedback. That was a game changer. And that's why I've gone continually to do more 40 years of Zen, and simultaneously playing with nootropics. And now, my brain is performing at a level that even before I started drinking and drugging, which was, well, it's better than that.

Dave Asprey:

It's unbelievable. And I love hearing your story. I'm in a similar place. My brain was cooked. I went to Dr. Amen, who shows you all the holes in your brain. And in fact, he said, my brain looked like a drug addict living under a bridge. He said, "You have chemically induced brain damage." I'm like great. But when I look at my response time to visual and auditory stimuli, and this is what you measure for gamers, or Formula One drivers, I have the average response time of a 20 year old. And it's supposed to drop with decades. So, I'm around, what, a 200 instead of 350 or maybe a little under 200. And this is before you can think about things. This isn't will. This is literally how quickly does your brain make electricity when someone says boo, right? And so it's possible, it's quantitatively possible, you've experienced it.

And Mark, you've experienced it. And I'm thinking a substantial portion of our listeners have experienced it at least once or twice going, "Wait, I felt way better than before." And honestly, the gate away drug oftentimes is butter and MCT and coffee. Right? And it doesn't have to be that though. Maybe it was from fasting or they were [inaudible 01:07:07] or something. I don't know. But we've all felt that one day with a spark. And what I have dreamed about doing is saying how do we make it easier

for more people to have that most or at least more of the time. And I think you have something special with the Nootopia set of things you've got here.

I just want to caution listeners. Yeah, it's not cheap, it replaces dozens of pills you'd have to go out and buy. So it's actually cheaper than if you were to go do all this stuff that I've done for years. But it's going to take you the first month. You're going to be like, I've got to consult the app, like there's an app that comes with it. This is complex stuff. But the benefits are what you would get after three or four years of spending more than this every month than having a handful of pills and taking them today and saying, "I got a headache," and taking them tomorrow and saying, "Oh, that one worked," which is what I've done, which is what Durk and Sandy did way back in the day.

So, I think the programmatic survey based app based tune it every month approach is the way to go for people who are the diehard serious top 10% of performers. And you could say, "Dave, that's elitist or whatever." But no, if you're a racecar driver, you buy a racecar and you put 104 octane gas in there, right. And if you're not a racecar driver, you don't have to buy the race car and you your resources and your attention somewhere else. And that's totally okay. So, this isn't just a call to say everyone has to do it. But just to say the people who are seeking those states, this is the fastest path from A to B that I know of. And even though it looks pricey, it's not compared to the way I had to do it and the way most people do it.

Matt:

Do you know how much it costs to get one guy to do what we do? It's six figures. I know because I know people that do what we do. If you're a high performer and you want to hire a chemist to do your own custom stacks, it starts at 100,000 to \$150,000 a year.

Dave Asprey:

If you're hiring overseas.

Matt:

Exactly, right. So, we're doing for a fraction of a fraction of that. That's the quality of service. And everything's customizable. If there's certain blends people don't like, they can remove those, they can modify those. This is absolute total customization. I just want to give Mark a quick opportunity to talk about the last two stacks which is his favorite Apex and ...

Mark Alan Effinger:

Oh, yeah. So, yeah. We talked about *Celastrus paniculatus* and extractions of it. And you probably know malkangani oil, maybe Dave. Right? It's a cold press of *Celastrus paniculatus*. Well, if you extract it using Sonic extraction, you can get it to lean towards a very unique angle on the acetylcholine, dopamine axis. The really cool part about it is it has a, I don't even want to call it a waveform, but essentially, it brings up so quietly, you don't realize that you're suddenly running it at 80%, 85% performance level. And then, 8 to 12 hours later, you're still running there if you want. You can call it up on demand, you don't have any kind of peaks and valleys you have to deal with. But you can also sleep, which modafinil's praise, right? You take it, you can still sleep, but you're going to be ... There's a cause that comes with that when you've done modafinil, I'm sure.

Yeah, so it's really fantastic. It also does a lot of recovery, neurological recovery. So it's great. It's a really clean product. I like it a lot. One of the other aspects of it is we use a very specific saffron extract, which has been proven to be more effective than the most effective antidepressants.

Dave Asprey:

It turns out, the first person ever to put that in a multi-ingredient formula was me. Yeah. You're talking about, what was it called, Afrin AF. Yeah. And I don't think they actually make that one anymore. But yeah, when it was first available as an ingredient like this stuff is amazing. And the fact that you guys even found that, almost no one knows about it. You guys found it and incorporated it that is a really, really potent thing. I was so stoked to see it in here. Awesome. So, when you look at the stuff that you know, because you are Mr. Noots after all, just the broad amount of incredible research that's out there. And to be honest, putting it all together is a huge pain in the ass.

Literally every morning I have all these bottles, and I go, "Okay, I know what this one does. I know what it's going to upgrade. I know what it's going to downregulate. I know if I take that one and that one together, it's going to drop my blood pressure a little bit too much. And that's not going to lead to really good results unless I take a little bit of extra cortisol to counteract it." Yes, I actually think about this every morning automatically, because I live this shit. Okay. But it's worth it because I'm so dialed in. And so you guys are like, "Dave, I understand the World Domination box. My kids are like "Dad you got a new board game?" I'm like, "No, that's my new cognitive enhancers from Matt." And it does save a huge amount of time and thinking on stuff like that, which is valuable, right?

So, it takes 15 minutes of putting pills together to okay, I looked at the app. And I did A and then I did B and today I wanted to chill. So I didn't do C. So, all right, you guys have done something special there. And the fact that you have all those crazy ingredients most people would never even buy to put on their dresser full of vitamins. Kudos, I think, you've done it.

Mark Alan Effinger:

Part of the fun, I think, is when you discover the effects of an obscure nutrient. And then, you figure out how to potentiate it with maybe an existing, maybe something a little less exotic. And you get a two or three or four or 5x compound effect, or you get it to last forever, or you get ... Neurogenesis is one of my favorite things to explore, right?

Dave Asprey:

Yeah.

Mark Alan Effinger:

Because of these blooms of new neurons, I mean ... And then being able to program those to be able to say, "I want to accomplish this, to think it, do it and go for it." And know that you're creating a neural pathway groove, right. It's like a kata in martial arts. You're repeating the kata until it is secondary, muscle memory and everything else takes it. Same is happening up here.

Matt:

Well, I remember, Dave, you talked about how you didn't need modafinil anymore. And there's a very specific reason why your brain cemented that state. That's the thing people don't realize with drugs. I mean, I'm in the rooms of 12 steps all the time, people come in, even though they've stopped drinking and drugging, there's still certain states that they can be trapped in. Now, that's true on the high performance side. When you start using nootropics or you do things like 40 years of Zen, and you experience the state, your brain changes, and you're able to reactivate that state and go back to it on demand. And that's what we do with the product. So, not only are you activating peak performance for that day, but your baseline is changing all the time as you use these.

I've experienced it. Virtually every client we've had says, it works amazing out of the gate and then it gets better and better and better.

Dave Asprey:

Yeah. It's completely true. When you show the brain this is your normal state, it will actually attenuate to that. And that said, if you were to do you know Nootopia for four years straight, like I'm dialed in, and then you were to say, "I'm going off the Bulletproof diet. I'm going to go on my omega six seed oils and take my red food coloring and NutraSweet and MSG, and go cold turkey out this." You're not going to stick. You can poison yourself. But if you keep fueling the brain right, you may find you need less of it over time, like I did with modafinil. Eight years after that, that young person's brain response time, I'm dialed in. But man, give me pancakes maybe with gluten and canola oil and god knows what else, then I'm not going to have a great day, right?

So, am I going to take twice as much of probably everything that you guys make that next day to try and bring myself back? Yeah. But I just want people listening to hear what you said, which is that when your brain gets used to performing well, it will perform well. Right? And it's the same reason shamans take mushrooms or ayahuasca or whatever every day for 10 plus years, and then all of a sudden, I'm there or not there all the time. And that's part of the initiation and the training for a traditional shaman from the jungle, versus an instant shaman online, because the brain can get there. And what I think listeners are interested in is okay, what happens if I am enhanced for five or 10 years? And what it is, is a whole new levels. And you've you guys understand this? Because you've done it, but it's hard to put words to it.

I just want listeners like this actually is real stuff. And no, you don't have to go by Nootopia in order to do it. I just think it's a faster and more likely way to get you there. Now, which is why I want to talk about it. By the way, you know the rules if people come on and talk about something new, you get a discount. Use code Dave10 nootopia.com, N-O-O-T-O-P-I-A.com/dave.

Matt:

Now, one real important word, this is the problem or the struggle with this business, this is not bottles. So legitimately, when this comes out, we can accept about 100 new clients. And then, we're going to close it off until we hire more people. We're hiring as fast as we can. We just brought three new people. And we're very close to our limit in terms of how much because again, it's hand capping, it's the formulating, this is not mass produced stuff. So, 100 people max with this drop plus we're going to Upgrade Labs. We think that and we're going to be talking there about Nootropics, we do expect to probably sell at least half of that if not all of it there. So ...

Dave Asprey:

You're talking about the conference, the biohacking conference? Yeah, definitely Upgrade Labs is a sponsor of the conference, but it's not called Upgrade Labs anymore. That was a weird thing, the last CEO [inaudible 01:17:53]. So I think you are going to probably fill up your stuff because we have a few 1000 people coming. But regardless, guys, if you want to do it, get on the list, nootopia.com/dave, use code Dave 10. And it does look like a board game. When you get it, it's super high quality, it is custom packaged, and it changes every month. If you were to do this yourself, you literally would have to do what I do. I have a 0.000 scale, like a drug dealer scale with little weighing papers. And I'll weigh out a certain amount of something I'm going to take in.

If we get a new housecleaner or somebody will come in, they're like, "Oh, my god, this guy's a drug dealer or drug user." I'm like, "No, those are just my cognitive enhancers." So what you're doing is

you're saying you want research chemists and people know what they're doing to put together your stack for you, and tell you when to do what. So, that's a cool thing. No one else has done this in the history of nootropics that I'm aware of. So, I'm pretty darn interested in this.

Mark Alan Effinger:

And Dave, our new facility is in a church. So, the Church of Nootopia.

Dave Asprey:

I love it. That's so cool. All right. Well, guys, I appreciate you being on the show. Mark, thank you for taking the bag off your head and being willing to say you're a research chemist. Are you planning on doing a ton of podcasts? Or are you sticking to the research chemists side of things?

Mark Alan Effinger:

I like both sides of it. But what I'd like to do is actually get into some of the more esoteric science of how we get there and also take case study people from how they've gone from sick to superhuman because to me, that's where the real fun is. And once people realize that this is something anybody can get to, all they got to do is you commit to it, like you've done. You commit to it, you figure out what the nuances are of how your physiology and neurology respond. You tweak those things. It's a constant process. Right? It's that Six Sigma, getting better and better and better and better and better. And the cool thing though, is now when you're in the presence of people that used to maybe be daunting in terms of whether it's cognitive performance or physical performance, you have this kind of almost that sly smile, the Cheshire Cat smile of an edge knowing that you're already there, and you can deal with that stuff. It's really empowering. And I think that that's worth it.

Dave Asprey:

Yeah. It is empowering. I love the way you put the words to it. And there's this word called ineffable. And it's one of my favorite words, because it's a word that means there isn't a word for it. So it's like reverse meta. And it's a word that comes up a lot at 40 years of Zen, Matt, you've probably heard it when we're going through the talks doing the neurofeedback stuff. But we don't have words for it. So, you go to an old religious text and like, well, imagine the Buddha sitting on a gold, six-inch high pillar thing and they describe every little tiny detail. And then they're trying to find words to make you have a sensation in your body by visualizing it, because there is no language for this. It's not like I could look at you and say, "You know what, in Brodmann area 17, I want you to turn up your alpha and your gamma by 8%."

You'd be like, "What the f are you talking about?" There's no connection there. So we're all dancing around this whole interview, that state of being bulletproof or being superhuman or having more than you thought you did and it is real. And we've all done our best to talk about it. And this is where I want to lead the people who want to go there. And acknowledging a lot of listeners, like I just want to feel like myself, I'd want enough energy to get through the day. And that's enough. And that's easier. That's lifestyle stuff. And there are people that are saying, I want to do that. And I also want to be able to have like ninja disappearing skills. And that's when you go for the super high level cognitive enhancement stuff. So, it isn't something that everyone wants or needs.

But if you're hearing this and going, "Oh my god, I have to have that." Well, great. That's how you're wired. Go do it. And if you're saying, "That's not for me." Just know that it's there if you ever do want to go there or other people in your life are going there, you can support them. That's how it works. Thank you, guys, nootpia.com/dave, N-O-O-T-O-P-I-A.com.

Matt:

Thanks, Dave. It's always a blast. I can't wait to see you at the event. And, yeah, again, this is for high performers. And I think, Dave, you summarize it well. If you're a smart person that wants to really maximize your output in life, this is what this is designed to do. So, check it out, nootopia.com/dave. Dave 10, save 10%. Thanks, Dave.