You're listening to Bulletproof Radio with Dave Asprey. This is the second part of a two-part interview with my good friend Peter Diamandis, author of the books Bold and Abundance. The creator of the X-Prize. The guy who basically, I'll say almost single-handedly, returned private investors to space. A Harvard-trained physician and a molecular geneticist and an aerospace engineer from MIT. Very, very intelligent, smart guy and what we're going to talk about in this episode, and by the way you should listen to the first one if you haven't already gotten it. Download that as well. But we're going to talk about Peter's massive transformational purposes. We touched on them a little bit more. We're going to talk about extending human lifespan and a little bit more about mining asteroids, although we got into that in pretty good detail in the last episode.

I'm going to share my own massive transformational purposes, my own moonshots that came about because of my membership in Peter's group called Abundance 360. If you missed the announcement in the last episode the Abundance digital program is something that I'm offering a scholarship for listeners of the show. You can go to bulletproofabundance.com and just straight up there's no dots in there. Just bulletproofabundance.com. You get a massive scholarship that lets you get access to the same stuff that's been inspiring me for a very large period of time.

Peter, thanks for not expiring me and inspiring me instead. Welcome to episode two.

Peter Diamandis: Thank you, Dave. Always fun spending time with you, buddy.

Dave Asprey: All right. Let's talk moonshots. You are doing planetary resources where you're mining asteroids and you're in the process of doing that. Because of you I actually have held the type of equipment that will be mining asteroids. Like literally in my own hands I've remote-controlled lunar rovers. I've run them over my stupid-looking toe shoes while wearing VR goggles. The actual things that are going to space. I've never been so inspired in my life than hanging out with a crowd like that where everyone in the room is like, "Sure, we can change the world. We're already doing it. We're going to do it even more."

But let's talk about longevity. You mentioned that your number is 700 years because that's what the longest-lived sea creatures are. I'm kind of feeling inadequate with my little 180 years or more in terms of life span, but let's talk about what you're doing from stem cells, from longevity. What's up, Peter?

Peter Diamandis: Let's jump in there because it's interesting. You, Dan Sullivan, the head strategic coach, fellow, dear friend.

Dave Asprey: Yeah.

Peter Diamandis: A number of people have started talking about, openly, we've started talking openly about our desires for extreme ... achieving an extreme age. My own

background, I was doing a joint medical and engineering degree and I remember I was watching a TV show during the few moments I would be watching TV and it was on extreme-aged sea creatures. I had no idea that turtles, whales, sharks could live hundreds of years and it was theorized on that show that some creature could live for 700 years. It hit me. I said, "If they can why can't we?"

Dave Asprey: Yeah.

Peter Diamandis: It was an interesting a-ha moment and I said clearly it's a hardware or a software problem that should be fixable. I made a commitment at that point to focus on that. A couple of thoughts to sort of share context and I'll go into the companies I've been building and I'd like to hear your thoughts on this. The first is, it turns out there's some interesting reasons why we don't live too old. The two are if you look back at human age over the hundreds of thousands of millions of years, back when food was scarce, before there was McDonald's and Whole Foods, you would typically have a baby at age 13, when you went into puberty, and then you would grow to age 26 at which your kid would have a baby. Then at that time when food was scarce the worst thing you could do for continuing for species was take the food out of your grandchildren's mouth as the more powerful adult and the best thing you could do is give your bits back to the environment.

The average human age for most of all human histories was in your mid-twenties. Then we discovered better sanitation and antibiotics and germ theory and so forth and we extended life. We're about to extend it, double it again.

The other thing is that most people, most women will be fertile until their mid-thirties, call it, and if you've got a genetic disease that hits you in your forties, fifties, and sixties it's never selected against. So we have cardiac in your fifties and sixties. Cancer in your sixties and seventies. Neurodegenerative disease in your seventies, eighties, and nineties, which wipes us out. But with the massive reduction in cost of genome sequencing, right? My business partner Craig Venter sequenced the first human genome in 2001. It cost a hundred million dollars, nine months of time. Today the price has gotten down to a thousand bucks and less than a day. Illumina, the leading manufacturer of gene sequencing equipment, announced a hundred bucks and one hour. So a million-fold price performance increase.

Dave Asprey: Yeah.

Peter Diamandis: Incredible, right? We're starting to understand what is the software code we're running and why some of us are living longer than others. Then we've just got CRISPR/Cas9 technology, which is exploding in terms of capital, startups. We just starting curing the first genetic diseases like beta thalassemia by cut and paste.

Dave Asprey: Just for people listening who don't know that. This is the technology that allows us to very cheaply go in and edit our own genes or the genes of other things without having to basically interbreed the way we used to do.

Peter Diamandis: We're going from evolution by natural selection, which is Darwinism, to evolution by human direction. It's an interesting re-imagining of what is possible. At Abundance 360 this year I'm bringing three companies to the stage which are .. It's a new startup out of Harvard that's commercializing the young blood experiments. A company that I'm a co-founder called Cellularity that's in the stem cell business. A company that is a 12 billion dollar private company that I'll unveil at the event. So again, human longevity, but a lot of conversations are going on right now that aging is a disease, not an inevitability. That's an interesting sort of conversational twist that occurs.

I'm passionate. I think we can add ... I think this decade we could start to add 30 to 40 healthy years in a person's life. My goal is how do you make 100 years old the new 60? So you've got the aesthetics, the mobility, the cognition at 100 that you had at 60. I'll add one other phrase and then take a breath here but Ray Kurzweil, who you know, who will be with us at Abundance 360 as well. Considered one of the most brilliant thinkers in the world in AI and a huge proponent, author, researcher in longevity, has coined a term called, "Longevity escape velocity," which is the notion that there's a point at which science adds more than a year life onto your life expectancy for every year that you're alive.

I was just with Ray doing a couple hour webinar with him and I asked him, "So Ray, when do you think we're going to reach longevity escape velocity?" His answer is in the next 10 to 12 years, which is pretty cool. So don't screw it up between now and then.

Dave Asprey: One of my most potent anti-aging strategies is going to piss off a lot of people listening, but it's drive a heavy car. Physics is your friend and if a piano falls on your head or you die in a car accident you're not going to get to take advantage of all this.

Peter Diamandis: Don't die. I'm serious. It's like I talk about don't die from something stupid.

Dave Asprey: Yeah. Exactly. All right. So you're really focused on this and your two big plays there. One's in stem cells. We had a bunch of speakers at the Bulletproof conference. I've had about $100,000 worth of stem cell treatments. I've the second person ever to inject my own stem cells into my cerebro-spinal fluid so they go directly to the brain. Just do that prophylactically. Everyone else has advanced Alzheimer's or something if they do it. I'm in the middle of culturing my natural killer cells and just doing stuff that's not even on the menu. I'll be the second person ever to inject another anti-aging protein that hasn't even been announced yet.

I'm absolutely going to do everything humanly possible but a lot of critics, I think of both of us, are going to say, "Peter, look. This is a rich person's game. It's not fair." What do you say to that?

Peter Diamandis: I say everything starts as a rich person's game when it doesn't work very well and then eventually when it works really well it's cheap and available to everybody to available. I mean, the cell phone, right? It's like when they were a million dollars each and they're the size of a briefcase all the Wall Street bankers used them and dropped their calls every two blocks. Now when they're 40 bucks and they're smart and they're doing gigabit connection speeds you've got them for poor kids in Africa. That's what happens.

Dave Asprey: Yeah. If no one does this it'll never be widely available.

Peter Diamandis: Yeah.

Dave Asprey: One of the things that I pay attention to is with food quality as well. Like you've got to make it so that there's enough demand for us to create a cost-effective supply. If no one ever says, "I want to live past 100 and feel good," there will never be demand for doing it and then we won't build the technologies and then we won't make them cheap and affordable and widely available. I love that answer. That's the same answer I give. Like all the good stuff used to be expensive and now it's almost free.

The other one is how are we going to fit all those people on the planet if people stop dying?

Peter Diamandis: Yes, I love that question. Here's reality. The majority of people that I know in Silicon Valley have had this conversation with Elon Musk and Larry Page are worried about underpopulation of planet earth, not overpopulation of planet Earth. It's like, "What? Huh?"

Dave Asprey: Yes.

Peter Diamandis: Here's the stats, and Bill Gates gives a great TED talk on this. Two things reduce population growth rate pressures. You make a community healthier and better educated and the number of children per family plummets. I was in Morocco years back. I was looking at the stats and I was like blown away. It was like 30 years ago 7.8 children per family in Morocco. Today it's down to 2.8. Why? Because a new king and queen came in and put in better healthcare systems, but the educational systems.

It doesn't make intuitive sense to me but when you're not sure which of your kids are going to survive and you're not sure if any of your kids are going to be able to uplift their quality of life and their income you have extra kids. You have an insurance kid. You have a kid who can go get an education.

Dave Asprey: There's actually a name for that, Peter. It's called RAIK. Redundant array of inexpensive kids. Sorry.

Peter Diamandis: For a computer geek I guess that's ...

Dave Asprey: Sorry. Had to say it.

Peter Diamandis: But it's true and it's sad but you look at the healthiest and best-educated countries in the world. They're in negative growth rates and so this is something which ... It just is.

Dave Asprey: It is and I also ... My first book was about human fertility and if you look at the decline in just fertility rates. Like there's some stuff going on where even if people want to have kids it's getting harder and harder to do it. I'm less concerned over the next 100 years and also I just fundamentally believe that if people realize, "I'm going to be around for 200 years. I'd better not screw this place up because I'm still going to have to sleep in my own mess." We might take better care of the world if we realize that we're going to be around for a while.

Peter Diamandis: Our ability to take better care of the world is increasing at an enormous rate. The majority of people live in these hive-like downtown cities because that's where the work is. That's where the entertainment is. What we're going to start to see is ... And I hate commuting, right? I just cannot stand commuting.

Dave Asprey: Oh, yeah.

Peter Diamandis: I live 12 minutes away. Most of that drive for me is in autonomous mode on my Tesla, but guess what? We're going to start to see fully-autonomous electric vehicles that you can make your hour commute into work peacefully. You can meditate. You can sleep. You can go listen to Bulletproof Radio. Whatever the case you want to do. We're also going to see these electric autonomous aerial taxis, AirBus, Larry Page, Uber. All these companies are working on vertical take off, vertical landing capabilities that you could live 200 miles from work and still make it there in a reasonable amount of time.

Then I'm a founding board member of Hyperloop One which you can live 400 miles away from work and still commute there. We're going to have cities start to spread out and you can have a beautiful living in the countryside and still work in downtown LA or San Francisco because your commute time is 15 minutes.

Dave Asprey: I basically do that now.

Peter Diamandis: You do.

Dave Asprey: I live on a 32-acre organic farm and where I live on Vancouver Island, there's been a huge influx of very wealthy people from around the planet. A lot of multi-millionaires from China. Everyone goes, "I can get clean air and clean food and I can live there?" Okay. Then they're moving out and my kids are going to school with them now. 10 years ago it wasn't like that. It's happening already but I think a lot of us just don't see it. Yeah, there's telecommuting and there's small planes. There's all sorts of stuff you can do but bottom line is if you don't have to physically be present somewhere every day your ability to live in a different environment goes up a lot. So we'll spread out. We won't all be packed into this big cities, which is kind of a big thing. That'll probably also extend lifespan and if people are having less kids but living longer and living better I kind of want to be around for that.

Peter Diamandis: Yeah, me too. I'm excited to see ... I mean, I have a hard time imagining, and I have a great imagination. This is a whole concept around the singularity. I'm a co-founder and executive chairman of Singularity University. We're alive during the most extraordinary time ever in human history, right? We're in the final game play of this video game called life. We're become a multi-planetary species. We are digitizing ourselves. We are reinventing everything. Every aspect of our world, of our lives, how we raise our kids, how we govern, everything over the next 30 years. It's extraordinary.

Dave Asprey: It is. If people listening are not inspired by that it's like go have more coffee or something but like, come on. Things are good. Then let's talk about what you're doing with stem cells.

Peter Diamandis: Sure. I want to talk about HLI first. It'd be good for context.

Dave Asprey: Yeah, sure. Absolutely.

Peter Diamandis: Back about three years ago I co-founded a company with Craig Venter, who sequenced the first human genome, and Bob Bob Hariri, one of the top stem cell scientists. The three of us got together.

Dave Asprey: He's a great guy.

Peter Diamandis: Three of us got together and said, "We can make an actual dent ... " This is probably almost four years ago now. We now said three years ago. "Make a dent in longevity." The concept of Human Longevity Inc, HLI, is we've started these things called the health nucleus. The health nucleus is a place that you go and we've reduce the time down to around six hours. Maybe we'll get down to four hours and the price was initially 25,000 bucks. Now it's 7,500 bucks. I'm working hard to demonetize and de-materialize the health nucleus, but today it's about 7,500 bucks for this, that you go once a year.

What you do is we sequence your full genome, all 3.2 billion letters of your life. We sequence you 30X. That means we sequence you over and over and over 30

times to get rid of any aberration in the sequencing process. We sequence your micro-biome, your gut. We look at the 2000 chemicals in your bloodstream, your metabalome. We do a coronary CT if you're above a certain age looking for calcium and cardiac dynamics. We do a full-body MRI, head to stern. Can detect cancer a few millimeter in size. We look at the ... We image the vasculature of your brain. We look at quantitative brain scan. We basically create about 150 gigabytes of data about you.

Then we can map that against the top 20 leading causes of death and determine every year do you have anything to worry about? We do a health check and we can say, "Listen. You are in great shape. There's nothing going on in your body," at a level of depth ... We're finding, in 4% of our clients, cancer they didn't know about. 30% we're finding things like atrial-fibrillation, fatty liver. All kinds of different things that are 99% actionable. The goal is, this falls into the don't die from something stupid category, right?

Dave Asprey: Peter, I was actually pissed off when I got my results from HLI because this says, "You have nothing to work on." I'm like, "Damnit. I thought I was going to get something here." But I did find my liver fat was under 3%. My hippocampal volume was 86th or 88th percentile. So my brain isn't shrinking like an old person, even though I'm formerly a 300 pound obese person with pre-diabetes. I don't have fatty liver and basically like wow, things are kind of cruising. I found some interesting genetic stuff but overall it was awesome to just know because it removes a lot of the energy that you spend on FUD: fear, uncertainty, and doubt.

That leads you right back to okay, either now I have data so I have actionable items and I have control. Or I have free energy because I would have been worrying about stuff and I can take that free energy and use it for abundance or creating things that matter, even if it's quality time taking care of yourself or your family or whatever. It's just like the energy you wasted on that, "Am I going to die of something I don't know about," is a meaningful amount of energy. It's just energy that you don't necessarily know you're wasting.

Peter Diamandis: This is the vision for HLI. We have one facility in San Diego today. Not making this a pitch. This is the kind of opportunity that people should see. One facility in San Diego today, we're going to be opening up facilities in cities around the country. We're in the middle of licensing discussions and so forth, but the notion is this is something I have done now for three years in a row. I remember in the first time I found I had a slightly enlarged aorta. Was it congenital or was it something to worry about? And so as I imaged my body stem to stern I realized it isn't changing in size at all so it's pretty much what I was probably born with and I have nothing to worry about there.

But when you find anything at stage zero or stage one, that's the time to kill it. That's the time to solve it, right? I drive a Model S. I've got two airplanes I fly. Those vehicles are all filled with microprocessors and sensors that can basically find anything wrong at the moment it begins so you can fix it, but for most of us

we don't have any of that data, right? Our refrigerators are better-wired than we are. The idea from HLI's program is you should be doing this, what I call this health check, every year on the year to determine anything going on. If there is, find it, fix it.

The second part of what we do at the health nucleus is we create a longevity plan which is based on your genomics. This is what's likely to get you. You have a higher probability of this cancer, this cardiovascular disease, or this neurodegenerative disease. These are the checks you should do more frequently. Right? That's what HLI ... That's my part of the business. Again, the don't die from something stupid side of the company and also we're making massive discoveries as we start to sequence those people who have lived to over 100 and are in great longevity. What's going on there? Why do they have it? Why can they be smoking at age 100 when everyone else is dying at 60? This is where we combine massive genetic, phenotypic, and machine learning data to create discoveries. That's HLI. Very proud of where it's going and having fun with that.

Dave Asprey: All right. Then Cellularity is another one of the things you're working on.

Peter Diamandis: Yes. Yeah.

Dave Asprey: For people listening, Peter is truly ... Like not pitching these things at all. Just these are things going on in the field of bio-hacking that are the most fascinating things I know about. That's why we're talking about these. I just think it's cool and I hope you do too.

Peter Diamandis: Yeah.

Dave Asprey: Keep going, Peter.

Peter Diamandis: It's interesting. Bob Hariri is a superstar, right? People know Craig Venter's name because of his work with sequencing the first human genome. Bob is going to be, is right there in my mind and will be known a lot more. Bob was an MD, PHD, fighter pilot, neurosurgeon. If anybody ever saw the old film called Buckaroo Bonzai, that's Bob. He just can't sing.

Dave Asprey: He's like that.

Peter Diamandis: He's not a rockstar but it was interesting. He had this moment where he's in the ER. He's doing brain surgery on someone who had this massive accident and as a neurosurgeon it's pretty rough going. You're trying to sort of glue things back, sew things back together again. At the same time he's having his first baby and he's recounting the story that if back 30 years ago you were doing the very first fetal surgery where if you have a baby that's got some kind of a cardiac anomaly, you can open the mother's belly, go into the uterus and do heart surgery on the fetus and fix it and then when the baby is born there's no scars.

The baby is perfect. The mistake is fixed and there's nothing. So what's going on there?

The realization is that the baby is being given birth to inside the placenta, which is this massively rich 3D printer of stem cells, placental stem cells, which can create every tissue the baby has. So he had the insight that the placenta is this massively rich organ of stem cells and started a business which has since become Life Bank, which goes to pregnant families and says, "Listen. Instead of just saving the chord blood," which is done now. Things like chord blood registry. "Is you should save your child's placentas." So I have two six-year-old boys. Both of their placentas are stored with Life Bank. In that placenta is millions of dosages worth of stem cells.

I believe my children will have an indefinite lifespan, right? In the stem cells is their original genetic boot disk, meaning their genetics at birth. We would, God forbid, knock on wood, whatever you want to stay, can regrow the children's organs from that original boot disk. We'll be able to repopulate the kid's stem cell populations.

One of the things that Bob did the work and realized is two important things. As we grow older two things occur. One is our population of stem cells in our body rapidly declines by orders of magnitude, 100 fold, a thousand fold, in some cases 10,000 fold less stem cells per body cavity or organ. Another thing that occurs is that your stem cells undergo epigenetic changes. They age. They become more senile. We know this from sequencing them. It's your exposure to oxygen, free radicals, the environment we live in and so forth.

What Bob has done and I helped him co-found Cellularity. We merged three divisions of three pharma companies and created this company, is that we're using placental-derived stem cells to help cure different diseases and eventually rejuvenate a person's regenerative engine of their body. You can take your own stem cells, which you've done. In the future you're going to be able to take placental stem cells, which are sort of the stem cells at their most vital stage, at state zero, if you would, and give yourself 100 million stem cell injection.

Those stem cells are like little computers that measure what's going on, the inflammation markers in your body and go and generate the right growth factors in different areas. This is what Cellularity is doing. It's on a platform of stem cells. It's also natural killer cells are in great supply in placentas. We're isolating those. That whole slew of research and some amazing results so far.

Dave Asprey: Beautiful. This is the stuff that will rapidly decline in price where I think this'll be well, why would you have a hip replacement or an ear replacement when you can put this stuff in those joints as they're starting to degrade and just not go down that path anymore.

Peter Diamandis: Yeah.

Dave Asprey: I would say it's time to short the companies making mechanical joint replacements, unless they have some sort of superpowers like you can detach your arm and shoot it like a rocket. That might be cool too, but you know.

Peter Diamandis: So love that idea.

Dave Asprey: We talked about your other ... Mining the moon and we've talked about Cellularity and HLI and the aging field. Your other big moonshot was around creating community and incentivizing people which is what you're doing with, I guess in part, Singularity University where I'm an adjunct faculty member, actually, even though I haven't taught a class there yet. Also, what you're doing with Abundance-

Peter Diamandis: Yeah, it's X-Prize. It's Singularity University and the Abundance digital community. I just believe entrepreneurs, the means by which we make the world a better and better place, that an entrepreneur, by definition, is someone who finds a problem and fixes it, right? So wouldn't you love more and more people in the world finding and fixing problems? Right? Other than photo-sharing apps?

Dave Asprey: There's nothing more fun than doing that anyway. I'm really hopeful that more people in the Bulletproof community decide that they want to do something really big and take all that energy and go do it.

Peter Diamandis: So pal, let me interview you. Tell me about your moonshots and I'm proud to have had a small piece in inspiring you but I want to learn ... I think I know them but I'd love to learn more and have the community hear about your moonshots.

Dave Asprey: Sure. Bulletproof is a big one where I wanted people to have more energy. This comes about from my own experience when I weighted 300 pounds when I was 26, at the company that launched the first pay-as-you-go computing. We talked about AWS earlier. It was called Managed Web Hosting but it was something that I got 10 million from our board to fund. We built just slightly ... This is before Amazon Web Services existed but we built a pay as you go, we'll provision it for when you want it and you only pay for it when you use it kind of service.

I looked back at that. I was having massive brain fog. My joints hurt all the time. I was pre-diabetic. I was overweight and like I was old when I was really young. I did the low-fat, low-calorie diet, exercise six days a week thing and it just didn't work after putting all this energy in. So I started Bulletproof because I realized disrupting big food was a really important thing to do. The entire history of food has been how cheap is it and how good does it taste? That's pretty much how you make money in food and it's how you feed militaries too, right?

What it comes down to is we're building a world where, "What does the food do for you," is the most important thing? Right? And what's the impact on the

system of food which starts at the soil and ends as you exhale carbon dioxide, like this whole chain. Bulletproof is about awareness and about just showing people, "Here's how you're supposed to feel."

Bulletproof coffee is kind of the gateway drug for that stuff but it's now reaching 10 million plus people a month and you really, with Abundance 360, you really just help me think, all right, how can I expand the content? How do I reach out? How do we become ... How do we reach the most ... I don't want to say eyeballs, although that's part of it, but the most mouths.

Peter Diamandis: Yeah.

Dave Asprey: Like every time someone tries one of these things that actually works and realizes that there's more energy than they're used to, that's what the win is and our cost of goods is higher than a normal food company because our stuff is made in specific ways, but that isn't the big deal. It's that now we're national at Whole Foods whereas before I was a member of this I would have said, "You know, an e-commerce company is actually more profitable. You make more money if you sell something directly to someone because you don't have to pay distributor. You don't have to pay a grocery store and all that stuff." But now we're in all of these locations. We've opened several more coffee shops and the idea here is I want to ... It's reach. It's changing lives.

Peter Diamandis: Give me that number, pal. Where are you now and what's your moonshot five or 10 years from now?

Dave Asprey: Last year we had 100 million cups of Bulletproof Coffee that were consumed and this is pretty amazing.

Peter Diamandis: 100 million cups of coffee? That's extraordinary. That is. I mean, just the million part is hitting me now so that's ...

Dave Asprey: Yeah. I'm like, holy crap, right?

Peter Diamandis: Who in their right mind would go up against Starbucks? I mean, honestly? Seriously? Right? It's like, it's insane. Just by the way for people listening, a moonshot is in many ways something that's a crazy idea. I like to say that the day before something is truly a breakthrough it's a crazy idea. Most people do not allow themselves to go into that place of crazy idea, whether it's mining asteroids, extending human lifespan, or going up against Starbucks and reinventing the entire mindset around food. It is insane. So 100 million-

Dave Asprey: The 10X goal is there. It's a billion cups of Bulletproof Coffee and our traffic now ... I would like our traffic to be 10 times what it is now because Bulletproof is changing lives, so I've really invested a huge amount in my content team in scientific research. We're funding some core research around water chemistry and ketones, but the big thing is literally 10 times more people getting access to

the content and 10 times more people using Bulletproof coffee, which I know what it does biochemically. I know the change that it can have on degenerative rates of everything you can think of.

That's on the food side, but one of the things that you do and one of the things that I learned from you and to some extent Tony Robbins has talked a lot about this as well, how you can, with the right teams you can have a bigger impact.

The other thing that is massively important to me and something that's becoming more and more of an issue is that we have a problem with toxic mold in the world.

Peter Diamandis: A dear friend of mine today has just discovered that what has been destroying his life is toxic mold, right?

Dave Asprey: Yeah.

Peter Diamandis: He's been in and out of MRIs. He's been in brain fog. Tell me so I can share this with him.

Dave Asprey: I did a documentary a couple years ago called Moldy, and I interviewed guys like Daniel Amen and Mark Hyman. Mark's talked about toxic mold, his experience. Daniel Amen is like, "Dave, your brain looked like you lived under a bridge taking street drugs because you had chemical poisoning from mold in your bedroom." I'm like, "Okay, so this matters." Solving the world's toxic mold problem is what one of my portfolio companies called Home Biotic is all about and we're starting out with a probiotic spray that you spray around your environment that eats mold and microtoxins as a fuel source. The idea is if you have a competitive environment then you don't get a blossoming of the toxic thing. Yeah. I mist my house once a week. I walk around with a little sprayer and this is the sort of thing that is required for space travel, Peter. If you get a toxic mold aspergillus thing going on in a spaceship do you know how long ... They're not even going to make it to Mars if they're all being poisoned along the way, because space travel is tough enough on the human body.

This is also incredibly important for agriculture, for developing nations. We've got the ability the change it by preventing the problem in the first place.

Peter Diamandis: Yeah.

Dave Asprey: So that's that company's moonshot. It's literally to solve the world's toxic mold problem.

Peter Diamandis: Is the company available today? Is the product out there today?

Dave Asprey: Yeah. The product is shipping. Yeah. Just started shipping.

Peter Diamandis: All right. I will Google it and send it to my friend immediately.

Dave Asprey: It's 29 bucks. It's not an expensive thing.

Peter Diamandis: I will buy it and send it to my friend immediately.

Dave Asprey: Nice. This is the second gen of the product. The first gen smelled like cookies and was not perfect but this one is. We just dialed-

Peter Diamandis: By the way, is the documentary available if I Google for it?

Dave Asprey: Yeah. Moldymovie.com. I'm actually working on getting distribution for that because it's ... I spent a lot of money out of pocket and six weeks filming. It's got a custom soundtrack from the guy, Eric Troyer, from Electric Light Orchestra. It's a real documentary and the idea is a dozen people including physicians who are just decimated by toxic mold and a dozen top doctors who are working in the field saying, "This problem exists and it's real."

Peter Diamandis: M-O-L-D-Y or I-E?

Dave Asprey: M-O-L-D-Y.

Peter Diamandis: Okay.

Dave Asprey: Moldymovie.

Peter Diamandis: I'm texting my friend right now.

Dave Asprey: Nice. It's an hour of time that everyone listening to this either is being affected or has a friend who is. It's such a big thing. If we're going to live to 200 years old you do not want to live in a house with this going on. That's just a personal thing. I grew up in a basement with toxic mold. One of the reasons I weighed 300 pounds is this stuff damages your mitochondria.

The other one is a company called TrueDark and I'm wearing one of their products, the glasses, right now. We have a junk light problem where light is a signal to our biology and by filtering out certain light frequencies, especially before bed, you can radically improve the restorative value of sleep and you can cause your mitochondria to all work together at the same time. Recognizing that the light we put into our bodies is as important as the food we put into our bodies is a big thing and this is a company that I started last year that's now ... It's already doubled my deep sleep.

Peter Diamandis: It's so interesting, right? I wear this Oura ring. I don't know ... Okay, fantastic. Are you actually-

Dave Asprey: We both are.

Peter Diamandis: Are you actually measuring your deep sleep and it's affecting your metrics, right?

Dave Asprey: Yeah. Oh, absolutely. I don't get jet lag anymore at all, no matter where I go and it's because light is a signal and you can control light

Peter Diamandis: Where do I go to order my pair because I was-

Dave Asprey: It's trueDark.zone. Peter, I'll just send you some. But truedark.zone or just Google for TrueDark glasses and you'll find them.

Peter Diamandis: Okay.

Dave Asprey: Basically junk light, toxic mold, and then the other big moonshot I have is for 20 years I've been doing neurofeedback for cognitive enhancement and first to fix my brain and then to go beyond. I opened 40 Years of Zen a couple years ago now and it's got now six different technologies including custom hardware and software around cognitive enhancement. I started out saying all right, this is to help world-changers be more dialed in on their goals and to basically remove the bad programming that we all have so that you can think abundantly, so that you can do the things you want to do. But as I was sitting there last year at Abundance 360 just doing the brainstorming part of the program I was like, "You know what? Screw that noise." That company's mission is to raise the average IQ on the planet by 15%.

Peter Diamandis: Do people realize how that would change the world?

Dave Asprey: In such a big way.

Peter Diamandis: Oh my God.

Dave Asprey: That means I've got to get this into high schools rather than for executives the way it is right now. I mean, I do this and it's changed my life. I was already, I think, pretty smart in the first place but I'm better than I ever have been and I'm about to turn 45.

Peter Diamandis: How does it work?

Dave Asprey: We use the brainstates of people who are very high-performers. We get their brainwaves. We're now putting it through machine learning which is just at the early stages there. But what we've done is we've looked at what advanced meditators from around the world do. We've looked at the brain patterns that are there. We do a quantitative EEG. We look at what's going on. 90% of people who come through the program have traumatic brain injuries from childhood they don't know about. We're like, "Oh, look."

We spend three days showing you ... It's like a personal development sort of thing where we show you the mental processes that you have that are not actually reflective of reality with what's basically acting as a lie detector for you and help you go through it. What happens is your alpha brainwaves go up. They cross over your theta brainwaves and these changes, they stick around. We can measure people a year later and their brains work differently. The last two days we increase voltage in the brain using a different form of feedback and we do another thing where we can increase or decrease neuron firing speed between areas. It's called Brodmann's Foci.

What's going on here is people walk out. They're going, "Wow, I got out of my own way and the voice in my head shut up." Those in and of themselves will raise your IQ just because the self-sabotage goes away. Along the way-

Peter Diamandis: Where does this happen? Where do I go and how much does it cost?

Dave Asprey: It's in Seattle and it's $15,000 right now. It's a five-day intensive, like 10-hour day program. The head neuroscientist is a former nuclear submarine engineer who also wanted to go to Mars. That was why he got the education he got. I know three people on the planet who are doing applied neuroscience for high performance versus for basically brain damage. This is the stuff I do on myself. I spent four months of my life with this stuck to the head. We're doing pulse electromagnets, the electrical stimulation. Several different kinds of neuro-feedback with a facilitator. There's IV nutrients. There's a chef on site. There's mitochondrial enhancement the whole way because you can't even do this kind of training with normal metabolic rates. It's like everything I know how to do all at once in five days.

Peter Diamandis: Beautiful.

Dave Asprey: I wanted it for me and when I started I was like, "If this will at least self-fund its own R and D I can continue my path and I can help a few hundred people who are going to help millions of people." But because of what you made me do, I was like, you know, I already wanted this. If I had had this in high school my whole life would have been very different and even better than it already is. I look at the amount of crap that people carry around with them and I think it's unnecessary and if we're going to all live to 700 years maybe we ought to do it with the right programming and with brains that work better.

These are my big moonshots. Those are the big ones.

Peter Diamandis: I love it, pal.

Dave Asprey: But thank you, Peter. I would not be thinking this way if I hadn't sat there in a community with a couple hundred other people who think at least as big as me and with you standing up there going, "Like, what the hell are you thinking?" Like, "God, I'm still thinking too small. I thought I was thinking big." That's why I

wanted you on the show just because A, to say thanks and also to offer that scholarship for listeners because you don't have to go there to the Beverly Wilshire and go to the whole conference to get the knowledge and also the thinking and the community, which has really upleveled me in a way that's ...

I think people listening know I'm just being really sincere about this. I just bring the stuff that works and one of the things that works most of all is surrounding yourself with people who just look at you and go, "Seriously? Is that all you've got?" You don't know how much you have. You need more of that in your life and you serve that role for me and I'm truly grateful for that.

Peter Diamandis: Thank you, pal. Thank you. Listen, would you mind ... I'm asking a number of A360 members to get on stage and share their moonshots this years. If you don't mind I'd love to have you-

Dave Asprey: It'd be a great honor. Anything I could do to support what you're doing. I'm a true fan.

Peter Diamandis: Thank you, pal. Thank you. The ability for us to increase our mental capacity and our ability and our energy. Every few points just transforms the world, right? I think, at the end of the day, that's where we're heading. These devices we carry around with us, our mind extenders to enable us to remember far more, but our processing power ... There is a variant of this that Ray Kurzweil talks about which is connecting our brain to the cloud, which he predicts will occur within the next 20 years and increase your memory and your cognitive processes millions-fold. But until then I think what you're doing is like the most important thing you can do.

Dave Asprey: I fundamentally believe that before you replace your hardware you should make full use of the hardware you've got. I think we've got a lot of room there. In fact, I believe we're already to some extent more connected than we think we are. I'm talking things like heart-rate variability and the ability to feel inspired when you room with someone inspirational. It's more than just words that does that. There's something about who we are and we're starting to see this when you take big data and you apply it to large swaths of population. You do social graphs and things like that. I want to fully exploit our power to show up and support other people with the hardware we've got as we're developing even better hardware in the future.

Peter Diamandis: Yeah. I hope everybody gets that this is truly the most exciting time ever to be alive.

Dave Asprey: Yeah.

Peter Diamandis: Right? These are the kinds of conversations that we had in this last 45 minutes ago from mining asteroids, extending human lifespan, to increasing brain functionality. I mean, it's insane. It's crazy but it's real and it's the kind of world I

want to bring my children up in. It's the kind of world I want to create. It's a world where we're not talking about a world of luxury, we're talking about a world of possibility for people and it's amazing.

Dave Asprey: Yeah. You talked about the first part of this two part series, you talked about how you kind of got inspired by the Apollo Program and Star Trek. You're a little older than I am, although of course you don't look it, right? But in my generation it was all about ... Certainly I watched Star Trek incessantly but there was also like the cyberpunk genre came out and I think reading science fiction is one of the most important things you can do, especially as a kid, to just dream like, oh my God. I was a cyberpunk in the nineties and spent a lot of my career in computer security and all that sort of stuff. But some of the stuff that we're talking about right now is straight out of like Bruce Sterling and William Gibson novels that were written in the late eighties and early nineties, and they're all happening in our lifetime.

Peter Diamandis: Yeah.

Dave Asprey: Which is astounding. I would offer to everyone listening one of the things you can do to think bigger, even if it's not your favorite genre, is pick up a science fiction book. One that's won awards. One that really has good thinking in it and read that and just go, "Wait a minute. Isn't some of this already happening and what can I do to make it happen?" You realize it's not nearly as hard to do it now as it was 20 years ago because you can find any information you want at your fingertips. Because you could connect with someone else working on that problem in another country in about 10 minutes. It's completely ridiculous and amazing.

Peter Diamandis: It really is. I mean, I keep on reminding myself there really are no actual limitations. It's really your motivations, what I call massively transformative purpose, your moonshot, that gives you a shining star to shoot for and allows you to block out the other noise and say, "I'm focused on this today. Maybe tomorrow my moonshot will be that that ena." But capital, knowledge, computational power, expertise. All of these things are in massively increasing supply and it's really the power of the human passion and commitment for us to do what were crazy things and are now today are brilliant things.

I mean, for God's sakes Elon Musk is talking about taking us to Mars in the next five years. I mean, hello. Tunneling and the BFR, the Big Freakin' Rocket taking you from New York to Sydney in 30 minutes. I mean, insane stuff but so is being able to have a video conference on your cellphone to anybody on the planet for free. That's insane. That's insane.

Dave Asprey: It is absolutely insane and you're reminding me back in the days. The first BFR was Cisco's Moonshot. It was called the Big Freaking Router, which was a router that was bigger to build the internet. I guarantee you that our conversation right now is flowing over a BFR that was built with that vision 20 years ago. It's cool. These ideas keep coming around and man, I'm having so much fun.

All right, we have about maybe six minutes left in this interview and I promised people at the beginning that you were going to offer them a couple things they can do to think bigger right ... Like without going to, what is it? Bulletproof Abundance or ...

Peter Diamandis: No, bulletproofabundance.com was the-

Dave Asprey: Thank you. Yeah. You don't have to go to bulletproofabudance.com and you don't have to drink bulletproof coffee. You don't have to do anything. Free stuff they can do right now in order to have this abundant mindset or just to think bigger than they are. What would you offer them?

Peter Diamandis: Very importantly you've got to tap in ... In order for you to do anything big and bold and to go to scale it's got to be driven by emotional energy. It just is. Doing anything big and hard is hard work and you've got to have some kind of innate emotional energy that's going to drive you. That refuses to let you stop, right? I know that for me it was an 11-year startup to create the X-Prize, right? From the time I announced to the time it was finally won was 11 years and it died a thousand deaths along the way. Same thing for Zero Gravity Corporation. Same thing for almost every organization I've ever started.

The question is where do you get your MTP? Where do you get your massively transformative purpose from? What I tell people is there's two hacks that I use. Number one, go back to what inspired you as a child. What is it that you dreamed about as a kid? I don't care how crazy it is, at the end of the day what was it that ... For me that's the purest people. My dreaming of being an astronaut and being in space. That was my happy place. That was the kid's dream. That passion drove me.

The second place is if I were to give you a billion dollars and Dave, I hope some day I can do that but you may be ahead of the curve there. But if I give you a billion dollars and say, "Listen, I want you to go and make the biggest impact on the planet with this billion dollars," what would you do with it? Where would you invest it? What problems would you solve with it, right? These are two emotional hacks that are meant to go and help you root yourself in your massively transformative purpose.

There's a third one which is what is the group that you want to most be the hero to? Right? If there's a group out there that if you could pick one group in the world to say, "I really want ... I would love for them to see me as an inspiration, as a hero." For me it's entrepreneurs who want to go big. That's who I care about and want to support them and inspire them. Who is that, what is that community and then what do they need?

At the end of the day these three things are meant to connect with that emotional energy. Once you have your massively transformative purpose, either as a company or as an individual then the question is what is your moonshot

within that purpose? What is a problem that is 10 times bigger than the challenge you're doing right now. Is there a crazy way you could imagine ... So for example, I was focused on private space flight. Zero G space adventures through the Space-X, through X-Prize, Virgin Galactic, on trying to open up space. Then I realized that even the marketplace for these businesses was in the hundred million dollar level. It wasn't hundred billion dollar level and so what was going to get bigger? I said the only thing that's driven humanity to explore more frontiers is resources. The silk road, the American settlers coming from Europe, the American settlers going to the west coast. Could we get access to the resources of space? That was a moonshot worth going after and it was at least 10 times bigger than what I was doing previously.

Find your massively transformative purpose and within that purpose what's a big, bold 10X idea that you can get excited about and then give up what you know about why it can't happen, why it's a crazy idea, and start dreaming about how could it happen? What are the crazy things I could do that would let go of the past and start with a clean sheet of paper, because that's what a moonshot is. A moonshot is done with a clean sheet of paper and reinventing how you do it.

Dave Asprey: Those are beautiful pieces of advice and if you're listening to this and this gets you as excited as it gets me, do these things. There are things you can do. Read more, think bigger. If you want to get started somewhere I don't know which of your books is more inspiring. Bold and Abundance are both ... Bold is why you should go big and Abundance is like, "The world is actually amazing right now despite what you might hear on the news." Those are like core books people ought to read.

Peter Diamandis: Yeah. Let me give folks two science fictions trilogies that I love.

Dave Asprey: Yeah, yeah.

Peter Diamandis: These were trilogies that once I started reading them I was so pissed that I was going to have to end reading them. They were so good. The first is a book called Nexus by Ramez Naam.

Dave Asprey: I have a long time ago.

Peter Diamandis: It's a trilogy and I love it. It's really a book that's down sort of the brain capacity, connecting your brain with the net. The second is a trilogy called the Bobiverse and it's a book by Dennis Taylor and it's ... Let's see. The first of these books is We Are Legion and We Are Bob. It's the story of a man who uploads his brain. When he dies he's having his body frozen and his brain gets uploaded and then gets cloned and put into spaceships that are actually going and colonizing the universe. The best science fiction trilogy I've ever read. We Are Legion. We Are Bob. Enjoy it if you read it. I've read both of those on Audible and I literally stop doing my work to listen to these books.

Dave Asprey: Wow. Okay. I did not know about that second one. I will go listen to it right now.

Peter Diamandis: We Are Legion.

Dave Asprey: Beautiful. Thanks, Peter, as always for your work. Thanks for being on Bulletproof Radio.

Peter Diamandis: My pleasure, pal.

Dave Asprey: If you guys like the show you know what to do. Leave a good review for it because Peter will see it. I'll see it, and it's a good thing. As far as I know I'm the only person offering this scholarship kind of out of my own pocket for Peter's program.

Peter Diamandis: You are. You are.

Dave Asprey: It's because it matters. If you're an entrepreneur and you just want to be inspired or you want to be an entrepreneur, not because you think it's going to make you cool but because you think that you can do something meaningful, I don't know how to make it easier but you should go to that bulletproofabundance.com and take advantage of it. I'm not going to promise that it's always going to be available. When the show goes live we'll probably have it up for, I'm guessing, a week or something just out of respect for the rest of your program and all that stuff, Peter. When you're listening to this hopefully you're listening near when it's released and if the offer has expired, it may expire at whatever point it's going to expire just to be really clear about that because we're making it up as we go. I wasn't sure I'd even be allowed to offer it here like I did at the conference.

Peter Diamandis: Well, I love the Bulletproof community and at the end of the day part of what the abundance digital community is about is a community. It's a place where you're going to find people like Dave, like me, who want to create a much better abundant world and are exponential thinkers and want to find juicy problems to solve them to create wealth for themselves but to make the world better at the same time. Because you don't have to choose. You can do both as Bulletproof shows us.

Dave Asprey: Well, thanks Peter. Yeah. That point is just so important. It's okay to have the means to change the world. It's just okay. On that note, thanks again and I will see all of you on the next episode.