nplesGMPholts@19000tc201t5 FoF361222090 Compliance Sale

s Flavors Isolates Viscosity Our Process **Q a** mpagna sat down with Rena Sherbill of The Cannabis Investing Podcast. (O)

Below, we've touched on some of their talking points and included a link to the full interview.

https://seekingalpha.com/article/4370800-unpacking-terpenes-cannabinoids-podcast

Rena Sherbill: Welcome again to The Cannabis Investing Podcast, where we speak with C level executives, scientists, and law and sector experts, to provide actionable investment insight and the context with which to understand the burgeoning cannabis industry.

Chris, welcome to The Cannabis Investing Podcast. Really happy to have you on the show. Thanks for taking the time and joining us.

Chris Campagna: Yeah, thanks a lot. Happy to be here.

RS: So something I like to ask my guests first, is how they arrive at the candidate sector industry, how you arrived at True Terpenes but also the sector in general?

CC: Yeah, absolutely. It's kind of a long story that goes back about 10 years, really kind of in the roots of more medical cannabis and the kind of the original community around that. But I had a personal experience where I was essentially completely healthy and then went to being almost completely paralyzed within two weeks.

I had a disease called Guillain-Barre. And so during that process of being in the hospital and getting kind of firsthand of what traditional medicine was like, and some of the potential gaps there, really kind of opened my eyes to alternative forms of treatment, really around not necessarily pills, but where you were taking one pill to fight a symptom and then another pill to fight the symptoms that, that gave you, et cetera, et cetera. And so I kind experience seeing the benefits of medical cannabis. And I just kind of got point.

So I realized back then that there was not a lot of education. There was limited research, but most medical professionals chose not to look at it or say it wasn't credible because it didn't come from maybe traditional sources that they were used to. And so at that time — I've always been entreprefieurial. And so I teamed up with a couple of physicians to start a medical practice that focused on educating and recommending medical cannabis to patients. And so during that stretch — we still own and operate those businesses today. But during that stretch of treating almost 30,000 patients or recommending and educating, we really saw how diverse the cannabis plant was, and how it helped with so many different conditions across so many different demographics.



nplesGMPholts@19000u201t5 FoF361222000 Compliance Sale

Flavors Isolates

Viscosity

Our Process



(0)

that everybody that throws it around completely understands what it is. Will you tell listeners how you talk about the entourage effect, what you're referring to exactly?

CC: Yeah, absolutely, it's really interesting because, some people are starting to understand it, but there was a study that came out that, 70% of people still really don't know what the entourage effect is or how that all works together. So essentially the concept of the entourage effect is how cannabinoids and terpenes and other compounds work synergistically together to have more efficacy in the product itself. And so essentially you see it a lot in the CBD industry where you have your isolated CBD. It's more traditional to a pharmaceutical product, and then you have your full spectrum CBD oil, which again has the other cannabinoids and terpenes. And so it just it works holistically together to kind of — to be more efficacious, and what it is, excuse me.

RS: Yeah, it's that word, that word can get you. Okay, so settling that question, talk to me a little bit, forever. When people talked about cannabis, it was well, forever. There were many things but in recent years before kind of the last few years where the sector has kind of skyrocketed and people's knowledge has expanded and deepened and evolved. But for so long, we talked about Indica and Sativa, these two different components of the plant.

Talk to me about terpenes how they come in, and how they affect, like the discussion of the plant and Cannabis and how it affects people, talk to us, like, I guess explain what terpenes are within that and also how much they affect the end product?

CC: Absolutely. So terpenes are so fascinating. Terpenes are really prevalent in nature. There's over 20,000 terpenes in various plants and actually insects. Terpe because in cannabis, they really contribute to not only the aroma, and the Chat with an Expert that the cannabis plant has. So for example, if you have two strains — and this is what we saw early on — if you have two strains of cannabis that both tested at 17% THC, for example, but one makes you want to tell take a nap or watch a movie. And the other one is kind of more energetic and want — makes you want to go for a hike, that's really predominantly the terpenes that are playing the role, in kind of guiding where the experience goes.

And so we've coined the term Sativa and Indica, which a lot of people will argue that that's not really accurate or the best way to describe it, but you can only kind of go so far, so fast in the industry, educating people. But it's really the terpenes that are that are guiding the majority of that experience besides the THC and the secondary cannabinoids.

nples GMPholts 2000 to 200 For F38 22 200 Compliance

Sale

Flavors

Isolates

Viscosity

Our Process





industry where you really need to have things that are consistent and standardized, and you can tailor. So while we believe in the full spectrum and everything naturally from the plant, we quickly realize that, we needed to, to improve upon that. And so we started looking at isolating individual compounds, both cannabinoids and terpenes. But True Terpenes obviously focuses exclusively on terpenes.

And so we started looking at isolating each individual component and then reformulating them into specific formulations based on the research that was out there at the time. And Dr. Ethan Russo, who's one of the main researchers, he was at GW Pharmaceuticals (NASDAQ:GWPH), and he's been working on this for decades. He's the one who really kind of pushed forward the entourage effect with Mechoulam and some of the other prominent researchers out of Israel. But so we really looked at how do we take what the plant has given us and then isolate out the components and then reformulate it to target specific desired effects.

And so when we started going down that path, we realized that isolating these compounds from cannabis was very difficult and very expensive. It was impossible to really scale that product. And so we started looking at how do we pull like α -pinene for example, from pine trees instead of from cannabis.

But from there we just started pulling a bunch of different isolated compounds and reformulating them to match various different cannabis strains and effects. And why this is so important is because, as I'm sure you and so many of your listeners can understand, the cannabis industry and the supply chain within is so unique, right, for a multi-state operator that you have to - if you really want to be vertically integrated, you have your own grow extraction, processing, distribution, everything independent in every stat

I think a lot of industries don't understand, that really caught that concept when you dig into it because it's so challenging to have a standardized and consistent product when you think about a company like McDonald's that wants a hamburger to taste the same everywhere, but they have to use a different supply chain in every single state, very challenging. And so what True Terpenes does is it helps multi-state operators and also craft cannabis processors, take, take proprietary genetics and recreate, the special nature of that formula that proprietary blends using non cannabis sources, so that you can actually scale and replicate that product in every state, in every country.

So for example, True Terpenes currently operates in 52 countries. We're completely legal or ancillary business, nothing we do comes from the cannabis plant. So we are non-plant



nplesGMPholts@19000tu201t5 FoF361222000 Compliance Sale

Flavors Isolates Viscosity Our Process

Q

= (0)

all comes together.

RS: What do you think it looks like in terms of pharma coming in? Is that something that you guys pay attention to? Or is it part of your plans going forward? And also, I guess, kind of a side question is currently, who do you decide which companies do you decide to partner with? How do you make that decision?

CC: Yeah, it's a good question. So I think at the end of the day, True. Terpenes is really an innovation partner. We have formulated over a 1,000 CPG SKUs. Terpenes touch essentially every category of product from oils to edibles to topicals and have really a unique angle and significant kind of value add to that. And so, no we continue to work with not only the strongest brands in the industry but we do have a place in our heart for the smaller craft industry.

We think that drives a lot of innovation, and kind of true to the roots in that. And so it's really about partnering with people that are focused on scale consistency and differentiation. I think that's the main thing that we help companies do in today's world. Again look at look at what's happening in Canada and really what's going to be happening in the United States. It gets crowded quickly and having a base THC commodity product is not enough. And so really that's the focus and who we choose the partner is people that have that vision and kind of the longer term perspective, especially coming from Oregon we've seen the bloodbath that happens when it gets oversaturated and when there's oversupply.

Again looking at Canada where there's thousands or tens of thousands of pounds of cannabis that's sitting it's going old, once you extract that then it becomes THC, a commodity, then what do you do to make it special right? You add proprietary blends, you add it to drinks and all those sorts of things and again, Cannabis, not — terpenes not only make that more, more effective, a stronger, better product, but then imagine flavor and aroma, right? It's super key to that product line.

So that's what we see there as far as partners. And then on the pharmaceutical side, we've seen — we've had a small taste of that with GW Pharmaceuticals. And Dr. Ethan Russo who we talked about previously, has joined True Terpenes, in that capacity. He's kind of head of our Scientific Advisory Board, and we're working on some joint development projects around that. And so we're really interested in the medical space ourselves and therapeutics, but it really is quite a quite a different model than what pharmaceutical companies will do.



s Flavors Isolates Viscosity Our Process **Q (2)** how important the entourage effect is, and having multiple compound **5.7** (0)

It's challenging.

Again, when you look at what that track looks like to launch a new drug and the clinical trials, improving safety, every new compound you add, adds an infinite number of kind of additional complexities to it. So you don't see products that are launched full spectrum with 50 components. It's just too hard to go down that pathway. So it'll be really interesting to see how pharmaceutical companies react to that and we work with some of the largest pharma companies in the world but more on the kind of the wellness side of things.

RS: Yeah, so where do you guys — or where do you see True Terpenes in the next few years? Where do you see kind of — how do you see yourselves growing and in what way? And do you see major partnerships? Do you see a pivot in some way? Are you focused at all on the public markets? Where — talk to me about what you see there?

CC: Yeah, I think, right now we're really staying on just really true to our core business, which is kind of B2B solutions, all really kind of behind the scenes, besides some of the kind of education and kind of research work that we're doing to help propel the industry overall. We're really just working with a lot of the major LPs and MSOs. And we have over 10,000 clients, so we power a lot of products, but we're really just behind the scenes and so we really just want to help our brands continue to innovate and differentiate. I mean, that's really the key, as I alluded to before, it's all about now how do you scale, create a brand and have a differentiated offering.

So you're seeing more and more of that in the terpenes story. And so that's really what we're going to just stay true to is continue to invest in R&D and product development to help a lot of these larger organizations that might not be as nimble or have as much experience. And people say cannabis is — industry is like dog years. And we've been in the industry for almost 10 and True Terpenes is over five years old.

So in the big scheme of things, we've been around a long time, we have a lot of experiences and a lot of insights. And so we just want to keep focusing on that core competency and helping brands grow.

RS: And speaking of, I would say something I've learned in doing this podcast over the past year has been the essential, I would say quality for a successful cannabis company, is exactly what you said the ability to be nimble. Speaking of like, this time that we're in, even more so,

nplesGMPholts@19000tu201t5 FoF361222000 Compliance Sale



Flavors

Isolates

Viscosity

Our Process



= (0)

down like a lot of other companies. And so even True Terpenes not being plant touching, we made a have large investment to be the highest quality company. So we have third party certificates for GMP ISO, FF, FS SC, we're FDA registered, et cetera. And so we were deemed essential as well.

But even as much as getting, doing supplier audits, and just operating in general has been quite a big challenge. I mean, we used to travel all over the country meeting with customers and showing the new innovative products and that obviously has come to a screeching halt. And so I think as a company, we've adapted fairly well. Luckily we have the technology that we do at our fingertips that are just really kind of basic. But yeah, it's definitely been an adjustment and a challenge. But the good news is everything is still moving forward and our customers are still in business.

So while there's some added complexities there for the most part, we're continuing to push forward and just actually becoming more and more efficient.

RS: Right. It must be wild. I mean, in terms of people's knowledge of terpenes, even in the past like year, I feel like has kind of gone through the roof would you say?

CC: Yeah, absolutely. And I think, the sales data is certainly showing that in the states, that are essential, people are — and just in general, I think it's just going to continue to go up as people, as the stigma goes away and people try the products and are kind of less, less fearful of, past experiences when in the edibles market for example, when you bought a brownie from your neighbor that had 300 milligrams of THC and slept for two days. That's not a good experience but now you can have a micro dose or five milligram that's lab tested, that's, extremely consistent, and you can have a really good experience without kind of going to the moon.

So as the products and the industry advances, just getting a lot more reliable and safe products and so that naturally is going to turn more of the people that aren't as comfortable but are curious about it, to actually come into the marketplace and start trying some of these products.

RS: And as a global company do you guys see that evolving globally not just something that's unique to the States?

CC: Absolutely. We're seeing it everywhere. A lot of countries and just consumers, in general, they're watching what's happening in the various legal markets and they're very curious and

TERPENES

nplesGMPholts@19000tu201t5 FoF361222000 Compliance Sale

Flavors Isolates Viscosity Our Process



(0)

globe in more of the maybe conservative markets so yeah all-in-all I think there's more and more cannabis consumers or cannabis curious, people segments across the world. So we're seeing a lot of interesting things getting orders from South Korea and just what they're doing out there, and South America and some places in Africa. It's bizarre but it's really kind of getting on the map and it's getting a lot of momentum.

RS: Yeah, it's exciting. It's exciting to see it play out. So I mean, you spoke about cannabis beverages a little bit ago and the difficulty, and we've had some people on the show talking about the difficulty and the finding consistency and efficacy with that. What are your thoughts about CBD in food and beverages?

CC: Well, the jury is really still out. We were really just waiting from the FDA, for additional guidance on where that's going to land. There's kind of free for all on adding CBD to everything, which again, going back to the real world, you can't necessarily do that. There's no food grade grass and approved substances and CBD is really in that grey area. And so I think the industry and the growth and where that's going to go is really just going to depend on some of the studies and guidance that the FDA will be releasing hopefully within the next year or so.

And that's really going to drive where that market goes. Besides that, I mean, from the regulatory standpoint, again, we just need to kind of wait and see. And then I think, just like anything, putting CBD in every single product and every category, eventually the buzz will wear down a little bit. And you won't be looking for CBD in a hamburger and weird stuff like that. And so we'll just have to see, but it's tough to say. I really don't even think we've scratched the surface on that yet in the States or globally.

So I think it'll continue to rise and the brands that have a unique compelling story will win and the fly by night people will slowly go away and so it'll be interesting to see how it all evolves.

RS: Yeah. Well Chris, this has been a really fascinating conversation really interesting. Do you want to leave listeners with anything or tell them how to find True Terpenes?

CC: Yeah, absolutely. I think again, it's really just I think for cannabis investors and brands in general, just really kind of diving deep into the story, the brand, the innovation and R&D kind of pipeline of various companies and what they're doing to stand out. There's a lot of hype and kind of interesting practices out there. So I think, investors really just need to be diligent and really kind of deep dive into these companies and see what's making their product special.



nplesGMPholts@19000tc20115 Foff861222090 Compliance Sale

Flavors Isolates Viscosity Our Process

) (

and scale. And that's what we'll keep doing.

 $\mathbf{H}(0)$

RS: Awesome. Well, Chris, thanks so much for joining us. Really appreciate you taking the time. Thanks for coming on the show.

CC: Absolutely. Thank you so much. We'll talk soon.

Related Posts



TRUE TERPENES AND PIONEER CANNABIS RESEARCHER, DR. ETHAN RUSSO, LAUNCH EXCLUSIVE LINE OF EFFECT-BASED TERPENE BLENDS

TERPENES AND EDUCATION // JULY 28, 2020

"Terpology by Dr. Ethan Russo" to encourage three unique moodstates: focus, energy and calm PORTLAND, Oregon – July 27, 2020 – True Terpenes, the leading platform for terpenes innovation, research and development, has launched





ENTOURAGE EFFECT OF TERPENES IN BEER?

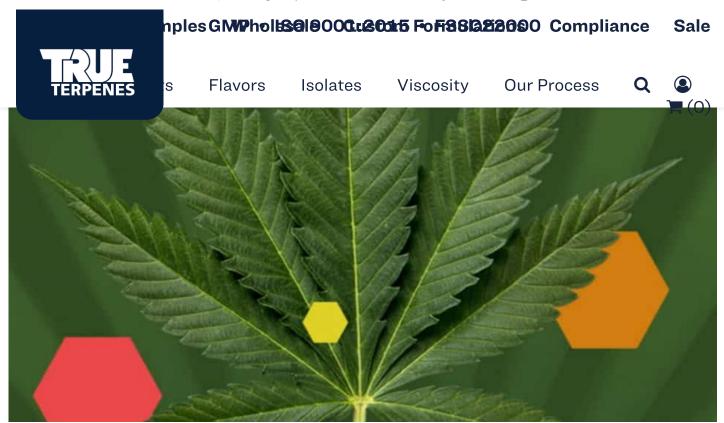
TERPENES AND EDUCATION // MAY 11, 2020

Infusing spirits and beer with terpenes Adding THC or CBD to a beverage may be common now, but what happens when you add cannabis flower or terpenes? As the cannabis industry has spread across the US and the world, it has inevitably



ENDANGERED STRAINS

TERPENES AND EDUCATION // MAY 4, 2020



THE ENTOURAGE EFFECT

TERPENES AND EDUCATION // MARCH 25, 2020

This article about the entourage effect is for educational purposes only. This is not meant to diagnose, treat or otherwise represent advice on a medical condition and does not constitute medical advice. Talk to your doctor about all medical