

Caspar ([00:02](#)):

What's going on, Pedro.

Pedro ([00:03](#)):

Hey, Caspar. Nice to see you, man.

Caspar ([00:05](#)):

Happy new year, brother.

Pedro ([00:07](#)):

Happy new year to you too. You're looking really, you know, fresh dapper. I like the shirts.

Caspar ([00:13](#)):

It's the color I was, I was down in Florida. I got the vitamin D that changes everything. Now I'm back to 19 degrees up here, man. Just a, I jump into thing because I, I wanna get as much done in a little short period. Sounds good.

Pedro ([00:27](#)):

Sounds good.

Caspar ([00:29](#)):

So like number one, I wanna hear, what are your general feelings about 2022? Are you actually excited for 2022 or you think this is just a continuation of the last two years?

Pedro ([00:39](#)):

No, I definitely think that a lot more people have jumped on the wagon than before you could tell. I mean, if you go on YouTube, they took out the dislike button for all of the things that may not support their agenda and their, their theories. And nonetheless, people are still finding ways around these conditions. Like they'll post a comment that says, use me as the dislike button. And then you press like on that guy's comment or some somebody, and you see the amount of people that view the, the show on YouTube or whatever it is. And then the people that dislike it. And it's so much more than it was in the beginning of the pandemic. We there's just a mass movement of people saying enough is enough. And I feel like this year is gonna be the, the cap. Like that's it. People have crossed the threshold. If you put any more pressure on them they're gonna explode,

Caspar ([01:25](#)):

Hey, listen, Joe Rogan is getting 11 times the viewership of CNN. I mean that says enough.

Pedro ([01:30](#)):

I saw that.

Caspar ([01:31](#)):

That's where people are like, Hey, we're looking for the truth. We had two years of trying to figure this out and now we're moving somewhere else because we're not liking the narrative and we want more

control and actual truth out there, which is, is why I'm excited for 2022 as well. And I do think there's a lot of really interesting things out there. And I ask you to share a few before we even jumped on mm-hmm <affirmative> and I was looking at one of those studies and, and both of the things you shared were really cool. And could you jump into what you saw as really exciting for 2022, starting with cold plasma therapy?

Pedro ([02:04](#)):

Right. So the first time I heard about cold plasma therapy was from Lex Freeman's father, who was a physicist as well. And he did cold plasma therapy research. And it got me interested in it, started looking into it and realized that, yeah, this is actually something that's gonna be utilized within the next coming decade or two at most. And basically what it is. So people know that plasma is the fourth state of matter. It's very hot it's ions, and they can create some really bad damage. But cold plasma therapy is where the ions are not in what's called thermal equilibrium. And so it's still ions that can damage. But the thing is, it won't be hot. It'll be just like room temperature basically, and maybe a little bit more and in some instances. And the aspect of this is that you're basically generating reactive species of various kinds, nitrogen reactive species, oxygen reactive species. And so on that if you have something like a tumor that is malignant, you can target it specifically without hurting the patient and also eliminate the tumor, providing new ways to use therapies for cancer. But the, the thing is it can also transition to something like located or local microorganism disease, like if Lyme disease is specific to somebody in a joint and they need, need to use cold plasma therapy. They can use that. And while they'll get some degradation of the joint tissue, it'll heal itself without the bacteria being present.

Caspar ([03:26](#)):

Yeah. Really exciting stuff. Cuz I've known about plasma therapy, full spectrum light therapy, and it basically is quite hot. You can't be near in some points and it's pretty interesting cuz again, to me it mimics what the sun is doing right? The sun it's just the ball plat and that gives us all frequencies and could be healing and also could be somewhat detrimental. But if we're able to isolate that, make that cold and apply it to the body, they're seeing great results on this. And you do you think this is gonna be something that we're gonna see more and more of in 2022, you just excite the research, coming out?

Pedro ([04:00](#)):

The research, coming out, whether it's gonna be available for clinicians and hospitals and other healthcare providers and practitioners. I'm not sure yet, but I do know that since laser therapy is available and they use cold laser therapy, I don't see it being more than a decade before people have their hands on this.

Caspar ([04:17](#)):

Yeah. And that's, that's gonna be something that that's probably transform a lot of people, how we look at therapy. Now another thing that I know is already happening, you sent this over is the use of artificial intelligence, AI mm-hmm <affirmative> and personalized medicine. We saw this last year when we picked up something called TruDose PRP that used AI to not just count the number of platelets that were being of someone, but then personalize the exact high concentration that should come back for a specific therapeutic result, whether that's regeneration of a knee, whether that's systemic kind of stem cell activation and have seen great results with it. But I feel like it's just a tip of the iceberg, right? This is just looking at platelets and then really personalizing that way. What are you excited for AI and medicine?

Pedro ([05:06](#)):

All right. So I'm sure you're, you've heard about all the craze when it comes to single nucleotide polymorphisms. The thing is that SNPs are very common in the population and they're the norm. You're going to have somewhere close to 15,000 different SNPs for a single gene. If the human being has 30,000 genes that are coding for proteins, 15,000 times 30,000, that's a lot of variety, which is why we say that medicine should be bio individualized. Everybody's a little bit different and it's very true. Well, with all of that data, you can take the sequence of your patients and the people that you're working with and see what are their quirks from there running through whatever AI system you may have software and they can find out what medicines may be of harm, what may be of better use and really personalize medicine on a totally different scale. So it's not just, as you mentioned, PRP, you can do different supplements that are tailored to the person so much that they'll never experience some negative side effect. And you can also figure out basically the timeframe in which you should see some results for the person because it's that individualized because it's taking so much data from what we know about a single gene and how long it takes for a human being to get better by manipulating that gene or that metabolic pathway. That's where I believe AI is gonna transform things.

Caspar ([06:24](#)):

Now, lemme play devil's advocate here, cause I've thought about this a bit, you know, the use of AI and, and high forms of computer technology, does that start to push out the art of medicine and the, even the need for a doctor. Cause really quickly you go to, let's say a, a, a facility at any point, and there's something there that takes your blood, is able to read it, able to run it through all the latest research view, your genetic, everything. And then it basically gives you the best treatment plan and could probably even prescribe it right then and there without the use of any human or even the need for a human and a doctor. Now that to me is a little dystopian, maybe even a little bit, you know, looking too far into the future, but I don't think it's that far off, but what are your thoughts?

Pedro ([07:12](#)):

I see that happening as well. But I do see when it comes to physical diseases and diseases that are still not understood, for example, they'll apply artificial intelligence to the mainstream diseases. Somebody has autoimmune dermatitis or some psoriatic problem. They'll use AI for that. When it comes to the fringe diseases, chronic Lyme disease, mold toxicity, I highly doubt it. And you would have to work with somebody outside of the hospital setting to get that. And the person that you're working with will have to have access to AI as well, because it's gonna be expensive. There's no doubt about that. Now I also have a fear that with all of this great benefit also comes the fact that if you are using people's genetic information, where is that going to go? Is that going to go to government officials if they need it for some purpose or whatever, that's another quirk that needs to be figured out as has been with 23 and Me since they've sold some of the genetic information before, which is not ideal. So yeah, there's definitely some downsides to it. And I definitely see the, the dystopian aspect, but with any technology we can use it for good if we choose to do so.

Caspar ([08:20](#)):

And that's the thing, it's a tool. It is a tool, therefore it is somewhat neutral to how you use it. And I, I think in the right hands, it absolutely is a huge benefit to us and to our health. Now, switching topics a little bit, are there any supplements, any kind of like therapy, anything else that, that you're really looking forward to in 2022 or something you're keeping an eye on?

Pedro ([08:42](#)):

Not that I've seen, but I, I did notice that some companies are really switching their supplements to a more bioavailable form. For example, vitamin B1 used to come as thiamin monocitrate and it is useful, but the problem is some people have a bad conversion rate into what's called thymine pyrophosphate, which is the active form TPP. And I've seen some companies now sell TPP as a coenzymatic form, which is totally new something I never seen before. And not only with vitamin B, one with other B vitamins, like hydroxycobalamin, they now use it with another carrier protein. So it makes it even more bioavailable. I think that's gonna be the difference is noting that vitamins by themselves don't do much it's when they are interacting with proteins and the carriers where they bind to cells. And if you can change those things a little bit and provide it as a supplement, it may help people even more.

Caspar ([09:37](#)):

Yeah. And what are your thoughts on peptides? I be, I've been kind of on that train for a little bit. It's been hot, been you know, experiencing it myself and I still think it's really untapped and there's still so much we're learning about it and applying. So what are your thoughts on peptides?

Pedro ([09:52](#)):

I remember reading and listening to a mathematician named Nora Khaldi. She's based in Ireland and she utilizes peptides for therapies like in Ireland, you go get a prescription, her company has synthesized peptides that are useful. And what she's mentioned is that there's so much data in a single apple that in all these peptides present there, that you can't possibly know what all of those peptides are doing without testing each and every single one. When I heard that and I seen her research on peptides, I realized, wow, here is a litany of different proteins. I mean, up to 150,000 different peptides can be made by the human body. And some of them are so therapeutic. We can basically just replace our, our current therapeutics with peptides which are less damaging, easy to absorb bioavailable and to reach the proper tissues because those peptides may locate in specific tissues. To me that opens the door for whole new kinds of therapies. So peptides I see is a big thing coming up as well.

Caspar ([10:50](#)):

Yeah, I'm gonna have, actually, my co-founder Dr. Iwanicki on next time to, to, to talk about peptides as well and talk about his five big ones. So I'm kind of interested in that to see what happens in 2022, cuz again, I feel like we just started with this and we're just learning and it's, it's still like a wild west. It's kind of unregulated, FDA sort of getting their finger in it. Who knows what big pharma will do with this, but I'm actually more excited right now before it gets to that stage where it's super regulated and super like, you know, jumped into on the big pharma and pushed in a different direction where I think you could have a lot of development in a short amount of time. We're learning so much about it. Now you know, one of the things that I sent you that I was kind of excited about in 2022, I want to hear about your thoughts on this is that idea of us getting away from this sanitized environment and starting to put our bodies back into stressful situations.

Caspar ([11:47](#)):

I've, you've seen a lot of this, whether it's Wim Hof cold immersion therapy, infrared sauna, meaning you're putting your body into a stressful situation, whether it's cold, hot mm-hmm <affirmative> whether it's a situation of intermittent fasting or fasting itself, right? Yeah. We're trying to build the body and, and this is what I don't didn't understand about a lot of people, how they've sort of weakened the immune system in the body. Thinking that was a good thing. When we know the only way to get big

in the gym is to really rip it apart to shred your muscles, to really go in and push yourself and push past pain. And that's what builds muscle. And of course, then you do protein, everything else. But I think you're gonna see this all across the board, even on the mental side, pushing yourself to do things mentally, if not to meditate as well to silence, which is actually quite difficult for many people. So the idea of challenging your body to make it stronger and healthier and optimize, I think that's gonna go mainstream. I think you're getting to the point where everyone's trying to do, like ice challenge this and that, but I really do think medicine is going to start to approach this a little bit differently first with the integrated practitioners, then a little bit more with the mainstream, but what are your thoughts on all of this?

Pedro ([13:00](#)):

Yeah. So there's two sides of this that I've gotten to become aware of. First of all, is the Wim Hof of side of things and the Navy seal Jocko Willink side of things. Yeah. And then there's also the Ray Pete side of things, which recently been interested in, and there they're basically dichotomous to one another. They see things differently. Ray Pete believes that we're overstressed out and that the stressors themselves can be detrimental to our health while the others say that we're under stressed we're basically couch potatoes, I think it falls right in the middle, as you're saying, right? The stressors will, for example, if you upregulate epinephrine from a cold bath or if you do a workout and dopamine is higher, you're going to have activity with T-cells being elevated as well. You're going to have NK killer cells activate and help with immunity. Right there

Pedro ([13:46](#)):

and then you're boosting your immune system. The next step that you should do is make sure that you decompress, which can be an emotional structure or spiritual, such as meditating, you're decompressing the physical body, but you're stimulating a different side of your, your psyche that may help even more in other ways. So it's finding the fine line between being just enough that you're, you're producing some beneficial compounds, cuz without stressors, you don't produce glutathione. You don't produce the super oxide dismutase that takes care of the super oxide radical. Those things will only get produced in the presence of stress. But then at the same time, you may hamper their production. If you're overstressed. So finding the right balance of you stress this stress, what works for the individual will definitely be something that if you can manage properly will put you on a totally different level.

Caspar ([14:37](#)):

It's all about that balance really is. Cause I was reading this book, Dopamine Nation, basically someone that was a drug addict, replaced it with cold immersion therapy and said they got a similar high from that as they did with cocaine, but they kept taking it too far. Cause then they got that and they put themselves into a very stressful situation where they were doing it so much that their immune system was hampered. Everything started to backfire. So you gotta have that balance. And that's the one thing I think people need to understand is that with, with everything there is a fine line. There is where you could take it too far. Even in the sun, you know, we've been talking about that. I know you've been posting about, and I'm, I'm a big sun guy, myself, but people always come after me and they're like, sun causes cancer.

Caspar ([15:20](#)):

It's gonna burn you. I got, you know, all these things and, and, and then in my mind it's like, well, you know, moderation and just having some common sense. If you start feeling burnt, get out of the sun,

that's it it's like. But, but again, people don't quite understand that because I don't think they're in tune with their bodies. I think they're, they're allowing it to have too much. They're just going in and we have this more is better. Right? Look at even what's going on with boosters. It's like, Hey, I want four, five and six. I want, you know, keep going. I'm gonna get to the end of line after this one, cuz more is better. And I think that's something we might see in 2022 might start to realize more is not better. It's how do we get, how do we get away the most optimized with the least.

Caspar ([16:04](#)):

Right. And that's something I think also it's gonna be hard because most of modern medicine is based on quantitative results and the more quantity you expect, better results, whereas they're giving up on the quality. Right. And that's what one thing I would love to see is a better understanding of quality because too many people like, Hey, I take vitamin B. It's like, well, what kind of vitamin B do you take, right? Is it the crappy, like, you know, \$2 one you're buying at, at your local grocery store that's been sitting there for months and has no bio availability probably produced from a bad source, heat press. So it's losing all, you know, bioavailability as well in, in the concentration of it. Or is it something of high quality? Is that something you are looking at as well? Like going into the new year, something about quality over quantity in that moderation zone of it all.

Pedro ([16:56](#)):

It's funny that you mentioned this because it's, so it's not even with just supplements in the whole field of oncology there is a push for innovation, with different chemotherapeutics that they're developing. And when you see some of the studies and you see that the satisfaction of the, the, the, both the control group and the treatment groups with why they're getting this treatment or why they're not getting this treatment and how bad it is actually working, but it's something new. It, it basically renders the treatment that's gonna come forward in the next couple of years obsolete, cuz it's not gonna help anybody. It's just gonna bring in money to the pharma pockets. The quality of the treatment is trash and previous treatments are basically better. So it's something that you even see in the pharmaceutical development side of things, where quality is not really a concern.

Pedro ([17:46](#)):

It's just about, Hey, take this. You'll be all right. So absolutely the quality of food, especially is something that's crucial to know with the the reduction of the rhizosphere and the microbiome being basically killed off by all of these different pesticides that act as antibiotics. All the minerals and different compounds may be there, but the plants won't be able to uptake it without the transfer of the minerals through the fungal hyphae and the bacteria that communicate with the fungus as well. And if they're not there, you can eat all of the different foods that you want that come from that soil, it'll be nutrient depleted. And when somebody looks at the soil, the nutrients are still there. So they're like, well, it can't possibly be. But then you take a look at the concentration of minerals and different proteins and, and vitamins in the plant. And you see that's diminished so much. We, we wonder why some people just eat the healthiest food, but they still don't get better, quality matters in every aspect.

Caspar ([18:38](#)):

It's the biggest facet. It's the one thing my father always drilled down. Every doctor I've known that has, you know, done something different is always put quality first and in health that's that's, you know, that's, that's the, the cornerstone of everything is quality. Really quickly. If you're looking at, you know,

trends in diets, is there anything that sticks out to you right now that you're gonna, you think 2022 will kind of be the year it comes around?

Pedro ([19:03](#)):

I definitely see a paleo resurgence. Mm. And my, I think that's gonna be something that you see again and, but mostly focused on quality animal foods. Like what Dr. Paul Saladino discusses with his term, the animal based diet where he's like explaining the difference between grain fed and grass fed. Before, I don't think there was much of a focus on that back when the paleo diet first came out, the Atkins diet first, came out, meat was meat, basically, but we know now it's totally different. You get a much higher contribution of CLA and other fat soluble vitamins in grass fed meats versus grain fed. But taking that and applying it as a whole to the different foods and knowing that people are either coming off of carnivore diets and they're kind of slowly introducing some carbohydrates back, but then they realize that some carbohydrates still are the stress, stressful for their gut. They'll take what they can digest and keep it as a food group in, in general. And that's probably gonna mirror something like the old style paleo diet where it's potatoes, rice, no grains, no gluten, et cetera. And then a lot of vegetables, a lot of meat and a couple of fruits and berries. I see that trend coming back.

Caspar ([20:14](#)):

I'm actually cool with that trend. I'm cool with any trend that brings back this idea of, Hey, there's a variety of things out there. As long as it's high quality, as long as how you eat. It is also a part of that, right? Too many people just with guilt or in a rush or with stressful situations. That's not gonna help you digest even the highest quality food, of course, the better quality, the easier it is to digest. But I still think there's this huge portion that people are missing of how you eat, slowly, savoring it without, you know, all these different distractions going on. And I'd love to see that conscious eating habit come up. Pedro, last question. Is there anything else you're, you're kind of looking at that, that you're saying, Hey, this is gonna be the year that this happens.

Pedro ([21:00](#)):

Hmm <laugh> I mean, besides Fauci finally getting it, but.

Caspar ([21:06](#)):

There you go that, that's what I was looking for.

Pedro ([21:07](#)):

Yeah. That's, that's pretty much, I mean, he, I don't know if you've seen Project Veras they've released a video with DARPA and project diffuse, which is what the NIH, NIAD was trying to fund, which DARPA itself rejected because it violated gain of function, research basis. And he was in a Senate hearing just now and Rand Paul and him went at it again. And at this it's like the same thing repeats itself. He continues to deny the responsibility that's ultimately it's right there. The facts and the evidence are pointing to this guy has lied. Why don't you just own up to it? And we can try to figure out how to actually mitigate something that's killed a lot of people and also is being overly, it's over fearful propaganda. That just needs to end. We need to go back to living our lives because this is not as bad as it's made out to be.

Caspar ([21:57](#)):

Yeah. I think 2022 is gonna be a year of revelations for many doctors. I think they're gonna speak up. I think they're gonna swallow their pride, even though that's not been known in medicine, but I think medicine isn't how it was public, you know, opinion of medicine right now is at an all time low, I believe. I think the trust in public health is at an all time low. I think the trust in general of government and, and you know, all these healthcare institutions at a low, they have to change. They have to, they have to adapt. They gotta swallow their pride and start saying, maybe we were wrong about this. And we gotta change it, our approach, for the good of everyone. And I think it's gonna be great for medicine. I really do cuz to admit something was wrong and then go in a different direction and see results coming out of that.

Caspar ([22:44](#)):

That's a wonderful thing rather than what we're doing now, doubling down on something that is not working. As much as we want to try and believe it's working and say it is, the numbers don't lie and people's experiences never lie. And I think the experience of feeling, you know, overwhelmed with this being just so sick and tired of it already is, is there. And I think that is always a catalyst for change, so I'm really excited for all of that. Actually, even if it is a little bit tumultuous at first, as all change, whether it's in the body, we see that with patients, when they start to go through a treatment, they sometimes get a little bit worse, right? As the body's adjusting, that that change is difficult for a lot of people. But then what happens next? You start to see the positive results come up, you start to the change enacts and you start to get used to that.

Caspar ([23:34](#)):

And you go in an upward trajectory, which is good for everyone I believe so. That's what I'm excited about. But Pedro man, always a pleasure connecting with you. You got one of the brightest minds on all of the interwebs and all social media, seriously. I mean, if someone's not following you, like they should, because you break it down in such great ways and you take signs that you're learning and share it with the world, which I think is, is a gift to humanity. So thank you again. Thanks for coming on, man. And I'm excited to see what 2022 has in store.

Pedro ([24:07](#)):

My pleasure, man. My pleasure being here and thanks again for having me.