Mansoor Mohammed, Ph.D.:

You've been so brainwashed into thinking that you get all of your nutrients from whole foods, which is where it needs to start from, absolutely, and that there's no place and no scientific study that shows the benefits of certain micronutrients. I'm sorry Dave, this is something that we've got to correct.

Announcer:

Bulletproof Radio, a state of high performance.

Dave Asprey:

You're listening to Bulletproof Radio with Dave Asprey. Let's talk about what you know about which specific genes make you prone to exaggerated inflammatory viral responses and lower respiratory problems, because you guys actually know this as the DNA company. In fact, you and I had a conversation about this long before COVID existed. So, share with our listeners what are the genes that if they have access to their genetic data, they might want to look at, because if you're one of those people isolation and maybe even doing some stuff preventatively would be good. So what are the genes?

Mansoor:

Indeed. So the first things first is let's just repeat and re-emphasize. Ultimately the real knockout punch is coming from something called cytokine storms, which is just a sexy word of seeing a deregulated hyped up, armed up inflammatory response. So, ultimately, if you know yourself to be that individual that has those exaggerated inflammatory responses, just in general. If you know that you're that individual that when the common cold and or flu, forget SARS COVID-2, for the time being comes around, you tend to spiral into a more pneumonia like presentation and so on and so forth.

Mansoor:

If you are the individual that your innate anti-inflammatory response is muted, in other words, your innate inflammatory response is exaggerated, more than often more than not, this is a risk category and it is for that response we can look at genetic phenomena and at the top of that genetic response or the genes that control your anti-inflammatory capacity, is your methylation capacity, overall. That's not just MTHFR and you threw that one at the very start and you had me laughing before we even started this podcast Dave. Please, come on the Dave Asprey followers by now know, MTHFR does not equal methylation or vice versa. So, it's a remarkable cascade starting with actually more important than MTHFR as the SHMT1 Serine hydroxymethyltransferase gene, far more important actually than MTHFR.

Dave:

Explain what that is and there are some people who are new listeners who probably don't even know MTHFR. So don't be feeling like you're left out of the cool kids club if you don't know about this. These are just the very common things that people have and a lot of people were saying, "I don't know why stuff that I think should help doesn't help," and they kind of get stuck on either recovering or hacking their health. MTHFR is just the lowest hanging fruit. So define it real quick and then define SHMT1. I don't even know much about that one.

Mansoor:

Perfect. So methylation is this one of the most brilliant, if not most beautiful examples of what we call cellular cascades. Methylation is the process by which when your cells absorb a number of nutrients, but at the top of it, B12 and B9, those beautiful micronutrients in the B complex family, together would B6 and the other B complexes. When your cells absorb B12 and B9, your cells do something. They take these two micronutrients on a cycle and methylation is the thing that does that and to do that thing, which we won't get into the weeds here. There are several genes that must act in a perfectly timed orchestra, so think of it this way. Think of the five person relay race, all of the listeners out there, and the job of this relay race obviously is to finish the race and you're passing a baton, first runner to a second run. Second runner grabs the baton passes it to third

Mansoor:

If the first run at any point in time decide, "You know what? I'm the fastest, I'm just going to run. I'm not going to pass on the baton." You're disqualified. Methylation is a cyclical process that requires one gene, then another, then another, then another to do its job in a perfectly timed cascade. The first of these genes are SHMT1 Serine hydroxymethyltransferase. It begins to bio-transform your folate when your B9 folate, green leafy vegetables, when the folate gets into the cells, SHMT1 bio transforms that folate, getting it prepared for MTHFR, Methylene tetrahydrofolate reductase, which further bio transforms your B9 into something called 5-methyltetrahydrofolate, 5-MTHF. Now that B9 has the baton and what is the baton here? A methyl group. A little CH3 methyl group.

Mansoor:

Now, these CH3, methyl groups are super-duper active. They're certain groups, they're certain moieties, oxidants, nitrous groups, sulfuric groups, methyl groups that when you take a methyl group CH3 and you bind it to something, to a substrate, the behavior of that thing that you've now bound CH3 to, changes. When you bind CH3 to your estrogens, they behave differently. They're no longer estrogenizable. When you bind CH3 to dopamine and to adrenaline, they're no longer neurologically active and so on and so forth. Importantly, when you bind CH3 to your DNA, the way your genes are expressed changes.

Mansoor:

So the body is going to do everything to control these all important reaction known as methylation and it goes SHMT1, MTHFR, MTRR, MTR, coming in on the side, you've got fucosyltransferase, you've got TC and II Transcobalamin, without getting into the weeds, it's just beautiful cascade.

Dave:

By the way guys, that was without the weeds and a lot of people are going, "What?" Here's the thing, it's okay to reach out for help of bio-hacking, which is one of the reasons that I called you and I did myDNA company results and we spent two hours going through my results and you're explaining stuff because honestly, I don't know those pathways without looking at them on a sheet of paper. But you did find a couple of different alleles that are tied to that exaggerated inflammatory response. If people have those, it's not that they're more likely to get the virus, it's that they're more likely to get a huge inflammatory cascade, ended up in the hospital unless they block it. What are the genes that people should watch out for?

Mansoor:

I would say at the top of the list is the SHMT1, certainly the MTHFR, but then-

Dave:

But that's not one gene, either one of those. So what are the alleles they should be looking at?

Mansoor:

So in the SHMT1 gene, one of the most functional, so if you have access to your data, 23andMe or otherwise DNA company look up the addresses that we look for genes, the SHMT1 address that you want to look up is the rs1979277, and forgive me, that's the way my weird brain works. So the rs1979277 is the SHRMT1 snip. You want to ensure, not that you have any choice in the matter, but the A version, the Alpha, Apple version, allele of the rs1979277 SHMT1 gene, is the version that is suboptimal. These are the individuals that tend to have hyper immune, not immune. So no, no, that's a completely false, inaccurate, hyper inflammatory reactions.

Dave:

What percentage of people are we talking about?

Mansoor:

About 15% of the general population, slightly higher. If I'm not mistaken, don't quote me on this, but slightly higher in the Eastern European population, but generally speaking, about 15% of the human population can carry one A, that's 15% carrying one A, less than that so we estimate that less than 10% carries two A's. If you carry two A's on your SHMT1, your anti-inflammatory potential is significantly below average. Those are the people when they get things like Lyme disease, for example Dave, those-

Dave:

Yeah, like me.

Mansoor:

Oh, well, thankfully you're a GG. So by God's grace-

Dave:

No actually, but Lyme disease kicked my ass. Actually it was more toxic mold that causes Lyme, but that's another discussion.

Mansoor:

Yeah, that's a different one. But if you're a AA SHMT1, you get Lyme neuroborreliosis, you don't do very well, unless you really get that bugger out to the body, just FYI.

Dave:

So for that population, I love looking at these risk populations because guess what guys? They're the perfect Guinea pigs, because if something works tend to restore a proper inflammatory response in the people who are weakest, and you do the same thing, you're probably going to get a robust response. If what you're doing is herbal or pharmaceutical, even lifestyle, it's not a guarantee, but it's likely unless you're dealing with specific epigenetic switches for those things which are an on, off situation, that's not what I'm talking about.

Mansoor:

Nicely said.

Dave:

So for that population, and thus for the rest of us, are there specific things that work? I have some things I going to run past you, but I want your thoughts before I pollute them with mine.

Mansoor:

Well, the first thing is it's more for what is both? There's a, there's a double side here. There is what you don't do and then what you do. The people that are the SHMT1 for that snip that we spoke of, if you carry the A and definitely if you carry the AA allele, what we in many others are starting to see is that you don't respond well to methylfolate. In fact, you've got to be very careful taking too much methyl B9, rather you respond way better, all things equal, to formylfolate, which is otherwise known as Folinic acid and I have no clue why that is considered a pharmaceutic here in Canada. It's a prescription, Folinic acid, which is just version of folate is considered a prescription drug here and it's sold ridiculously elevated prices.

Dave:

That's the same as 5-MTHFR, 5-methylhydroxyfolate?

Mansoor:

So, no that's the 5-methyltetrahydrofolate, this is 5-formyltetrahydrofolate.

Dave:

Okay, thank you for that. I actually thought Folinic acid was another name for it and you're saying there's a difference. This is interesting, thank you for that

Mansoor:

Big, big difference. So the synonyms for the methyl, we get methylfolate, 5-methylfolate, 5-methyltetrahydrofolate, those are all of those, quite in distinction to that is the formylfolate, that's the Folinic acid. These AAs tend to respond far better. So in other words Dave, because this is talked about so much in the autistic population, and you've got that subgroup of autistic children that you give them the 5-methylfolate, that many of the parents say this was a God sent, but the 5-methylfolate just seems for some children it increases their irritability, it increases some of their phenotypic responses. Oftentimes, they're the AAs and you get a much better response when you give them the Folinic acid, which is the formylfolate in distinction to the methylfolate.

Dave:

Okay, but you're not saying everyone should take Folinic acid. So what are the things that are likely to reduce the inflammatory risk in everyone, including that population?

Mansoor:

So, figuring out where you are by the way, per what we just said and by the way per extension, and again just forgive me here... equivalently you have the B12 story, because if you did not know your B12, the MTR and MTRR versions of those genes, you might just be taking methyl B12 thinking it's the best version and it certainly is the best for most people. But Adenosyl B12 can be a better option for some

individuals depending on the MTR, MTRR. So the first thing here is figuring where you are on that scale, figuring which of these versions boost and optimize your methylation. Optimizing your methylation function all things equal, is one of the best things you can do for health, and Dave, you've just nailed this in the past. So optimizing methylation cellular function, start there. Now, inflammation doesn't begin and end with methylation.

Dave:

I got to pause for a second there. So a lot of people listening have ordered your DNA test. They have their DNA from some time in the last 10 years they've had it done, but there's a much larger number of people listening who haven't done that. They're not going to know their MTHFR status and they're looking around going, "I got to order some supplements or not." So let's assume that they don't have access to their genetic information. Maybe they're encouraged to get it now, but if you didn't know and you're saying, "I'm worried, maybe I think I might be one of those high risk populations, because my grandmother got pneumonia, or something or maybe you've had it," what would you do to make sure that inflammatory thing doesn't hit you?

Mansoor:

Here we go at the top of it again, please for the listeners, I'm not a medical doctor making a prescription, but we're talking about just the healthy native things we can use. NAC, number one.

Dave:

Love it. That's on my list. All right, well let's get your entire list and I'm going to look for things missing. Doses, how much?

Mansoor:

We typically look at NAC, 250 milligrams as a base dose, which you can take twice a day, three times a day. It's very safe up to five, six, seven, 800 milligrams. We'd like to start with 250 milligrams and here's a little bio-hack. NAC 250 milligrams can be accentuated in terms of, both it seems its overall function, when combined with an equal amount of ascorbic acid, vitamin C. So, 250 NAC, 250 vitamin C.

Dave:

That's it for vitamin C? Is 250?

Mansoor:

No, I'm saying as a combined dose, which you can then double down on that as needed.

Dave:

So how much vitamin C would you take irrespective of NAC?

Mansoor:

Me personally, because mind you, all my other eating habits and looking at where I'm getting vitamin C from, I personally don't go above 500 milligrams, unless I am in dire straits, me personally. By that I mean as a healthy dose because mind you, I'm eating foods that are rich. I'm eating my bell peppers, I'm eating other foods for which I know I'm getting a good amount of vitamin C from, just in any event.

Dave:

Okay, got it. So when it comes to vitamin C, I normally do about a gram in a day, 500 milligrams twice or a gram once-

Mansoor:

Perfectly fine.

Dave:

... but now, at this time I'm doing like four to six grams.

Mansoor:

Just so that you know, some of the best studies of Intensive Care Unit interventions, IV vitamin C has been quite successfully used at the levels that you're talking about Dave, to majorly quiet the cytokine storm. So again, what we're trying to do here and what I'm doing and what you correcting me on is, we've got to look at where we are. Are we prophylactic, are we showing symptoms or are we then dealing with that?

Dave:

Okay, I'm thinking more prophylactic, but if you're showing symptoms, let's go through these in both of those. This is going to be really helpful for people. I've studied this stuff for 20 years around controlling my own body's crazy out of control inflammatory responses. So I feel like I've got like whack a mole, like no one's business on, on cytokines, but I really want to pick a brand. It's okay. So I'm going to ask you all these things for prophylactic use. Now, I'm concerned, I'm in a high risk situation, but I don't actually have it. I don't have symptoms of it anyway. So, NAC 250, a couple of times a day, vitamin C, 250 couple times a day and that's probably it and then what else?

Mansoor:

So typically those two things typically combined. I would ensure that I'm getting my vitamin D levels, again we have to know where we are geographically and so on and so forth, but I would be shooting in these times for at least 2000, I use daily and that's for D3. Again, you all know yourselves, you all know if you're taking higher than that, just a naturally to keep your levels up and speaking here, without the knowledge of where you are. But generally speaking, we're not talking 500 I use here for the vast majority of individuals. So just getting that vitamin D up.

Mansoor:

I would also ensure that you're balancing your methylation. What does that mean? It means that you're taking the appropriate B9, the appropriate B12, whether you're getting it dietary or not and then you're making sure, because B6 is and the rest of the Bs to help abuse. So in other words, basic good Bazell B100, B50 type baseline important here, to ensure that that methylation cycle, during these periods at least are operating at an optimal level. Now, next, one of the first micronutrients that is depleted during a viral infection, we have no reason to believe not SARS COVID-2 as well is Selenium.

Mansoor:

Selenium is a co-factor to the GPX enzyme, the Glutathione peroxidase enzyme, which is radically important when combined with SOD2. SOD2, Superoxide dismutase 2, combined with GPX are the two

enzymes that control your redox, your redox homeostasis. Let's pause quickly Dave. So that redox how your cells are handling your oxidants. You want a certain level of oxidants in yourselves, by the way, you just don't want too much of it. The homeostasis of not having too little, not having too much is super-duper important and it's called the redox homeostasis.

Mansoor:

Here's a very, very important point, Dave. Viral infections and it seems including size, if we can judge by the original size of 18 years ago, what does it do? Viral infections typically increase oxidants in your cells. There is typically increased oxidants in your cells upon viral infection. Here comes to the real zinger. Increased oxidants, increases viral replication. So we call this the viral loop.

Mansoor:

So, a virus enters yourself, your cells now start to accumulate oxidants. The accumulation of the oxidants tends to prefer and send the virus into replication, which is the very thing you don't want. So during viral replications, the ability to coerce that increase in oxidation, is going to be radically important and the other thing that's happening is, the viral replication is you sapping. It's using up radically important micronutrients such as Selenium. Selenium and NAC, these are things that we saw. NAC, vitamin C, what we've said before, Selenium... I'm going to be very careful. I'm not sure what the dose is. Please forgive me.

Dave:

It's all right to look up an appropriate dose. Now, what about form? There's one group says Sodium selenate and there's another. That's an older form that goes in very fast and then there's another form that sticks around for a long time, which is a methanol methionine. It a methionine group, but there's some weird thing on the front of it. I don't remember what it is. Anyway, it's that one. So there are two Selenium, so which one do you like?

Mansoor:

Don't know. I have to be honest with you. Don't know.

Dave:

I would say whichever one you can get is probably the right one at this point and the people I know, yeah.

Mansoor:

The one that you mentioned is the one that I take, which of course my mind is now looping as to what that full name is.

Dave:

Yeah, it's a very long, weird word. Given all the weird people that I know, biochemists, the people who are immersed in this, I actually think the Sodium selenate is probably better, but it's easier to overdose on it and it has a very short half-life in the body, but it probably gets used more effectively. That said, take what you can get and be careful on your dosing. All right. What about Zinc?

Mansoor:

Absolutely.

Dave:

Doses and forms that you like?

Mansoor:

Please again, please forgive me. The Piconate, is it?

Dave:

Zinc Picolinate.

Mansoor:

Picolinate. All right and somewhere in the realm of 15 milligrams. Again, everyone out there, get the form you can get and obey or speak to someone that knows better like the Dave's and Dave, do you have some of these recommendations? But Zinc is definitely up there.

Dave:

I do make a Copper, Zinc orotate and orotate is interesting because it slots itself into the mitochondria at a different way than most forms. I also like Zinc carnosine but I don't make one.

Mansoor:

There you go. So definitely the second, I did not know what you just said about the combination with the Zinc and Copper. I did not know that.

Dave:

Oh, I just have Copper and Zinc together because they kind of balance each other out. If you have too much Zinc you tend to deplete Copper and vice versa.

Mansoor:

Very good point.

Dave:

... and so I put those together as a stack, but the orotate or orotic acid form has really cool, interesting studies. It's mostly unknown and my goal is to make stuff I can't already just buy because it's easier to buy it with someone else, pays with the R&D.

Mansoor:

Absolutely.

Dave:

So, Selenium, Zinc, D3, vitamin C and NAC. Anything else you put in that stack?

Mansoor:

Right now, to be honest with you, that's my stack. That's my stack.

Dave:

I have a couple. So this is your prophylactic stack. Someone just says, "I just started a coughing. I'm getting tired. I can't taste anything. I'm pretty damn sure I'm coming down with something. What do you change or add to your stack?"

Mansoor:

Excellent question. So first and foremost, again, I really urge everyone to understand I'm not an acute interventionists, but I would then at that juncture, I would really start paying attention to getting up. My vitamin Cs to the levels of Dave was talking about. Probably don't do as much of the NAC as vitamin C. So in other words, you can top off NAC way sooner, than you'd can top a vitamin C.

Dave:

It's two grams max, I would say per day.

Mansoor:

Yeah, exactly. I would start doing that. One of the things about NAC is that it breaks the di-cell bond in the mucosal secretion. So in other words, simply saying, it's just a really good... What do you call that? It gets the mucus out of the system.

Dave:

Mucolytic,

Mansoor:

Mucolytic, there we go. All right. I would definitely be doing that. Dave and please forgive me here everyone, major disclaimer coming up, but I have just found this and I found others who found this as well. I found that a puff of hydrogen peroxide, an inhaled puff of hydrogen peroxide, it has become part of my daily routine and it is in my opinion, and again, don't ask me for the science of it. I mean obviously we know hydrogen peroxide, but I found it to be a gem of a gem of a gem. Prophylactically, I would do it once or so in the morning. If I see symptomatically, I would do it five times a day three to five puffs.

Dave:

When you say puffs, you're using a spray bottle of 3%. Well, the healing?

Mansoor:

There you go. Yeah. So it's sort of like you known-

Dave:

Like some you'd have sunscreen or bug spray or something a while ago.

Mansoor:

Just something that gets a nice vaporizer, something that you can breathe in and so you breathe out, and then on the breathe in you go, you got a couple of puffs in.

Dave:

The guy who's probably most responsible for that work, who's alive today is Frank Shallenberger, who's been on the show.

Mansoor:

Beautiful.

Dave:

Do you know Frank?

Mansoor:

I don't.

Dave:

He's one of the icon, the grandfathers of Ozone Therapy and I've referenced his mitochondrial research very extensively in headstrong and he has an intravenous hydrogen peroxide protocol that's worked for tuberculosis and it was worked for very long time, but you can use a nebulizer as well and they're in short supply right now, but it's just a little plastic cup thing that makes kind of a mist when you run air through it. You can also get ultrasonic ones, but what you do then is you put a few drops of hydrogen peroxide in the thing and then it looks kind of like you're vaping but you're vaping water vapor with hydrogen peroxide to get very deep in the lungs. I love it that you said that, because as a preventative every time you go out you might as well do it, because it's in the mouth. But if you are getting sick, man, I'm surprised and happy that you mentioned hydrogen peroxide.

Mansoor:

Hugely beneficial. It's magic. Again, prophylactically, it's not something I do just every, every day but a puff, but for symptom-logically if something is happening, I would get up to five puffs five times a day and it's still very safe.

Dave:

Got it. That is interesting to me. Also stain your clothes watch out. If you're using 3% like that, you might have an interesting response. Also if you've bleed anywhere, it's really good after a murder scene. It just cleans things right up. I learned that on Dexter. It's not from personal experience. Actually, the truth of the matter is, when I lived in a house, would talk to him as a child. I had 10 nose bleeds a day. I'm not joking. It was just a constant thing. Just I'd walk around and blood would just spurt out of my nose. It was really good for dating and I did figure out that hydrogen peroxide gets blood stains out really good, because I was like, "Just don't stand in the spurter zone around me," and we're all good.

Dave:

So aside from that, I think it's great. What else do you do? You're starting to get sick.

Mansoor:

That's my deck up to an including and of course we can start getting, now we go into the pharmaceutics, now we're going to call someone. Please, by the way, everyone out there, if you are listening and if you feel you're going in terms of respiratory distress, first and foremost, you know yourself, don't just be rushing off to your doctors or to the hospital. Please call ahead, speak to someone, if you can, have

someone that loves you, speak to someone, because we've really got to be careful with what we're doing and that's just a disclaimer to say, listen guys, we got to be responsible.

Dave:

Thank you for saying that. I did a whole podcast of a mini podcast where I'm just like, "Hey guys, here's all the stuff I know about the IL-6, the inflammatory cytokine that is the primary thing that's causing the cytokine storm." There's more than 40 studies. I think that I referenced, not that I necessarily put the asterisks, but I was citing it was I as I went through the podcast from memory and whatnot, and the one that stands out as something that I always take when I fly and it's called Andrographis. Which has multiple studies about respiratory infections and viruses, 20% lower duration and a similar reduction in the likelihood of getting it.

Dave:

So I like that it also drops IL-6 directly in studies. I like that stuff because I don't want IL-6. It's oftentimes paired with Akinesia. I think that is really worth taking if you start getting symptoms and probably just if you might've been exposed.

Mansoor:

Dave, because I don't know and again, just having the opportunity for me to you and you to your audience, how do you play with Akinesia in the pre-symptom versus post symptom? I hear certain things about when you take Akinesia and when you don't, do you have a take on that?

Dave:

They say you don't want to take it chronically. So taking it for more than six or eight weeks, both Andrographis and Akineshia they tell you not to because you need some IL-6. If you suppress IL-6 dramatically and Andrographis is one of the most potent ones and there's a few other things. So, I would say you want to pulse it. So if you went shopping and you licked the shopping cart, maybe you ought to take it for a few days, because if it's going to get you, it's going to get you then and the second you have a little bit of a symptom, you take it for a couple of days.

Dave:

Like last week, we've been self-isolating pretty damn well. My daughter's like, "Daddy might throat is a little bit." I'm like, "Yeah, takes some Andrographis along with the other vitamins." I just did an Instagram post with all the vitamins I have my kids on right now, so she took it for two days. Like, "I actually don't have a sore throat anymore." I'm like, "All right, stop taking it. That's fine." Clearly that was not the virus. Well who knows? Maybe it was, but it's a highly unlikely just given that word, she get it. So I look at that stuff and then I look at turmeric or curcumin...

Mansoor:

Good excellent.

Dave:

... and there are studies on IL-6 on that and the mistake people make there, is they take it with black pepper extract, which increases inflammation because it pokes holes in your gut and lets lipopolysaccharides through and there's studies about that. So look, black pepper is not required with a

turmeric. There's many other safer ways to get into the body and the formula that I make doesn't have that. But what it does have is, something called Boswellia, which also has studies for IL-6 and there's something called Stephania root, which is a hard to find Chinese medicine that just completely stops some of the cytokines besides IL-6 and maybe it's not completely stopping, but for me as someone who's had toxic mold, who's had Lyme disease and had chronic inflammation for much of my life, if I take that stuff on a regular basis to Stephania root, Boswellia/frankincense as another name for it, and I do that, I don't get the chronic inflammation. It takes care of the cytokine storm and it's not even a storm just takes care of cytokines that are too high in me anyway.

Dave:

So I tell people, if you take high doses of that stuff and you're not sick, you know what you going to do? You're going to suppress immunity.

Mansoor:

So important that distinction. So important.

Dave:

Prophylactically, I take a normal dose and if I'm getting sick, I cranked that dose right on up and it seems to be a particularly important. I also, to your point, I will nebulize hydrogen peroxide. I'll also nebulize Colloidal silver. There's good evidence about that or a few drops of Lugol or Nascent Iodine in one or in a 0.9% are basically 1% salient solution. The reason you want to nebulize a 1% saline is putting pure water mist without salt in it into the lungs in high doses can actually cause an opposite effect of what you're looking for. It's actually really important. It's not that hard to make 1% salient solution. You can Google how to do it. You also don't want to use tap water and it's just for people as you know these things because you're a doctor.

Dave:

I get mine out of an IV bag, because I'm lazy and I have IV bags because I'm a doc, but for most of us, you boil the water first and then the salt and then you put it in a sterile container and it's all good to go for a while, especially if you have iodine. Those are the things I'd be looking at as well as Ozone Therapy. I'm doing much of ozone.

Mansoor:

What's your take on Allicin, having a bit of just Allicin?

Dave:

It probably works, I'm a fan of garlic and Allicin comes from garlic. It's the active ingredient in garlic, just for people listening and onions to a certain extent and the whole Allium family. I don't think taking it on a regular basis is particularly good for you. A lot of people are like, "I'm taking garlic because it's good for me when I was a raw vegan. I did it all the time," and all that, but it does have unusual effects I think cognitively, especially at higher doses. So I say if you're getting sick, yes, but where I go before Allicin is I go to a regular leaf extract and oregano oil extract.

Dave:

There are different and there are studies for viruses around OLE as well as all of the leaf extract and my particular favorite one that I think is also a better than Allicin is a hydroxytyrosole, which is the primary antioxidant in olive oil and you pull that stuff out. A capsule of hydroxytyrosole is a hundred bottles of olive oil. It's kind of the Resveratrol of olive oil if Resveratrol comes from wine. Literally, I take this stuff every day and I do that anyway. It just, if I was getting sick, I'd be like, I'm doubling down.

Dave:

I take that stuff every day because I used to weight 300 pounds, because I had arthritis when I was 14 and you've seen my unusual genetics and you know my health history, because we've talked about it. So I'm not telling everyone to take this stuff. I'm just saying you should have a stack of things that stop IL-6 because if you're starting to go down this inflammatory cascade, you will know it because you'll feel like shit. You might want to turn those things up and by the way, I'm not talking about COVID, I'm talking about any infection that you have. You might want to do this. This is how I don't get sick, antibiotics every month for 15 years. I don't have to do that anymore, because I learned those tricks.

Mansoor:

Dave, it's worth mentioning that from the pharmaceutic perspective, again, this is not the prescription, but it's to highlight the point that Dave is making. The sort of off label use drugs that now everyone is clamoring, everyone meaning the medical agencies and associations to try to see. They're all culture scene, anti-inflammatory, hydroxychloroquine, the drugs that we're testing for the COVID and to try to coerce the cytokine storm. They're all at their core anti-inflammatory, IL-6 modulators at the end of the day. So, what Dave's saying here is so important. I do want to emphasize, Dave, forgive me, there is the difference between prophylactic and acute symptomology because...

Dave:

It's really important and I haven't said that enough. Occasionally I take it regularly, because I don't have it. If I'm sick, I radically ramp up vitamin C. If you're saying I'm going to do the same thing when I'm sick is when I'm well, look, you probably don't work out when you're really sick. These are just different states of the body, so thank you that I have not been saying that enough and I'm going to steal that from you and other shows and just remind people because, you're hitting something so critical.

Mansoor:

It's homeostasis, right Dave? The other day we're striving to be as optimal homeostasis as much as we can.

Dave:

I'm about to do an Instagram rant. I've been recording some thoughts of things like this that I have, but I want to gut check it with you and share it with listeners here before it goes on Instagram. I look at this idea that, we can flatten the curve. So we say, if everyone gets sick and goes to the hospital all at once, we'll run out of hospital space and it's going to be really bad and more people will die from lack of hospitals. Our best and brightest are saying, "Oh, you know what we're going to do? We're going to have the same number of people get sick and the number of people go to the hospital, but because we space them out better, then less of them will die, because we'll have more ventilators available."

Dave:

That's pretty much the flatten and the curve strategy and in order to buy the strategy, we'll just basically destroy our economy by 50% for at least six months and probably for several years. My take on this is that, that's stupid because our goal should be not to flatten the curve. It should be to reduce the area under the curve, because that's the number of people who get sick and if you want to talk about number people who are hospitalized, what if we could make it. So everyone got sick, but only 1% of people are even hospitalized. That's the goal.

Dave:

It's area under the curve, whether people get sick three months from now or they get sick this month, isn't that important compared to whether if they get sick, they are just not that sick and it seems like IL-6 modulation, the way we just talked about and Startens will modulate IL-6 too. Come on drug companies, you guys there's money on the table for you, come and get more people on Statens. You guys have to do that. I don't care how we do it, but doesn't it feel like medically, genetically there's some stuff we could do?

Mansoor:

100% Dave and-

Dave:

What are the things? What are we missing?

Mansoor:

Let me just do, because it would be hypocritical for me not to say this. When I first started to play, you talk about the hard immunity, I must say the emotive gut responses. Oh my God, but we don't know what we're dealing with. We don't know how many people that if we tried to do this, i.e., not just flatten the curve but reduce the area under the curve. What are we doing? How many people are going to end up dying from this and so on and so forth. So I must say to not be hypocritical, I was very hesitant at the concepts. However, when you start looking at, if we let this thing go, if we just keep tagging on another two weeks, another two weeks of self-isolation, of we're going to try to jumpstart the economy.

Mansoor:

In other words, what I'm trying to say is not make a solution, but I am trying to raise the awareness now, as to there has to be other ways that we should approach this, because we're not looking at the ripple effect. Number two-

Dave:

How do you reduce the disease?

Mansoor:

... and it lasts much longer than two weeks. When you get to that realization it is not to allow all of us God's side and let's throw parties trumping on the street, but it is to the agencies to like you just said, hold ourselves to a new standard where we go, listen we cannot just keep doing the same thing and expecting a different result, because here's the point I heard if we were going to do self-isolation... you know self-isolation is what Dave? When it is policed over two to three weeks, when you go, "You know

what? For two to three weeks, nobody leaves their house. You do that and you can make a dent into this baby."

Mansoor:

But the half approached self-isolation, really, you just slowing down something. You're actually increasing the area under the curve as you saw. You so intelligently and appropriately pointed out. Okay, so that's just an overriding statement there. Actually, we do have to start thinking more innovatively, because one more piece of factoid, got to say this Dave, we are misinterpreting the mortality percentages of this virus.

Dave:

Yes.

Mansoor:

Please, we've got to look it. How do you determine, 5% people die from this virus? No, you get 5% because they go of the hundred people that were confirmed with the virus, meaning test confirmed, five died or two died or one died, that's your percent mortality. However, the real percent mortality is five out of a hundred, but out of the 10,000 or 1000 or 7,000, the real number of people that got the virus, which we actually don't know right now.

Mansoor:

What we do know is that it is way more, so that the people listening for the Canadians, for our population, whomever is listening, when you see that number that says in the news release, "Now confirmed 125,000 cases in such and such country." That's 125,000 people that got early enough or privileged enough to get the test. There is an exponential number above that, that have the virus that are either fully asymptomatic or passing it off as just an allergy that they had or common flu or whatever the case might be. So, we've got to get more realistic, and this is part of what's frustrating me, as the hysteria cycle that we're driving. So it's all related Dave.

Dave:

There's a video I just put up on my YouTube channel. The Dave Asprey channel is relatively new and it's also on my Instagram on the main page, and I call it Pandemic Math and I actually found the data, and this is from the SARS outbreak, which is another Coronavirus. They initially said, "Oh, it's going to be somewhere around 3.54% fatality rate into the world," So two years later when they actually got population wide data. This no one knows at first how many people have it and there's no way to know it. So that's the real number to go with. Since they don't know it, they go with the number they know, which is a fake number. It is a very small, the only people tested. So what they did is, they went from three and a half, 4% all the way down to 0.02%.

Dave:

So there's a 65 times reduction after they got the Math, 65 times and so if you say, "Oh, my goodness, up to 5% of people with COVID," which is a very high number. "Could die based on current numbers." Well that's because they're testing people who are already in the hospital and they got in the hospital because they already had diabetes and heart disease and cancer and God knows what else. So yes, we don't know that number and it may be higher than we like it, maybe 1% but it probably isn't anywhere near that high. Just based on the fact that current alarmist numbers that everyone knows are bad Math,

that those are not 20%. If we're saying 20% of all people who got it were passing away, it'd be very different.

Mansoor:

Of course.

Dave:

It's just not there. Not to say, I don't want to encourage people to leave their house and all that stuff, like social isolating is important and it is. It's still probably not 20% but it's probably closer to five or 10% in aging populations and if you're a high risk, like in Italy, you're over 80 and you have an average of three preexisting conditions. Yeah, it's highly fatal in that. Of course, so is the flu.

Mansoor:

Absolutely. So certainly from me and I know Dave is just saying the same, none of this is to counter the appropriate measures, but it is to say, we've also got to tone down the hysteria here. We've got to be more realistic with the communities now. I guess what the government agencies are facing is if they try to, how do you get people to listen to you if they don't feel that something's important, then you have to balance that against the whole disaster that is unfolding in terms of our economy. Much smarter individuals and myself, we'll talk about that, but I am as just an average person looking at what is happening here and I'm looking from a scientific perspective and saying, per the mode of action, per the after effects, do these two things line up? I'm starting to question if that's the case.

Dave:

I don't believe they do. I'm not even questioning it, but that's all right. I'm still socially isolating for a few weeks. I don't think they're doing this for as long as we might be asked to do it. It's going to be in anyone's long-term best interest, but time will tell.

Mansoor:

Ultimately Dave, someone asked me, "Is there a silver lining here?" I'll say, you know what the silver lining is? This has created a shockwave in our communities and our societies that we cannot lead lives that leave us just, we will depend on acute care whenever we need it. This is going to reinforce that we've got to take better control of our health, because the comorbidities here for bad outcome of COVID are most often not always Bazell health concerns. The type of health concerns that you can address, not just by going into walk in clinic, but by taking ownership of your health. Taking ownership of your health, will lead you on a path that at least we're not saying that you'll never get ill, we're not saying that you won't get COVID, but it will certainly put you way better and safer for you, your loved ones. So there's a silver lining. The silver lining is, this is going to wake up people, I think, I hope.

Dave:

I believe it is and if nothing else, we're going to look at how much we spend on healthcare and what our outcomes were in the U.S. and go, all of those diseases that make you likely to get, those are the ones that are most profitable for drug companies. So, I'm not saying drug companies are evil, except the ones who buy Monsanto. You guys actually are evil. Sorry. But aside from that, look, if you set up a system that's going to maximize profits, it's going to do that and the decision that gets made automatically through hundreds of millions and billions of little decisions, is one where, the highest profit area of the equation, is the one where people have a bunch of stuff they have to take drugs for all the time.

Unfortunately, that is not what people want. It's not what's good for humanities and it's not what's good for your soul and it's certainly not what's good for making you highly resilient and making you hard to kill, which is what we want to do.

Mansoor:

Here's another point very quickly Dave, and that is, if I hear anyone else, and I'm speaking again, this is from course science, the folks that you know, the pundits that I don't know who are picked while I kind of think I know who through they're paid by, that come out, "There is no benefits in taking vitamin C. There is no evidence of the role of anything." These folks, honestly speaking, who keep propagating, promulgating this, to me I consider them some of the vilest creatures now, because you have brainwashed.

Mansoor:

You have brained rushed a population into thinking, if it's not stumped as a pharmaceutic, it has no benefit for me and by the way, I'm not saying that there is a snake oil and not saying that there isn't junk out there that people put into their bodies, that have no good reason. There is, a whole lot of it. But I am saying, if you've been so brainwashed into thinking that you get all of your nutrients from whole foods, which is where it needs to start from, absolutely and that there's no place and no scientific study that shows the benefits of certain micronutrients.

Mansoor:

I'm sorry Dave, this is something that we've got to correct, because there are clinical studies going out there, for all of those ICUs and the hard chorus medicine for and they're having to rely on NAC, they're having to rely on IVs of vitamin C. They're having to rely on things that they know work, but obviously there are pennies on the dollar compared to. I'm sorry, I didn't mean to go on a rant.

Dave:

No, people need to hear this. It's important. There was a number of hospitals. I interviewed a doctor on Instagram, Dr. Ann Shippy from Austin about this and what she did is, she sent a patient to the hospital and they said, "Oh, our committee has decided," this is a patient who tested positive and was in distress, "Our committee has decided that our treatment for COVID, is we put you on IV fluid and wait until you need a ventilator." That's all they were treating, because they weren't sure that chloroquine would do anything. Even though he was already taking it. They took him off of it, until his doctor intervened from outside the hospital. They didn't do vitamin C, they didn't do any of the stuff you're supposed to do and get this.

Dave:

The new data that just came out, you might've seen it just came out today as we're recording this, says that most people who go on ventilators either die or stay on the ventilator for very long periods of time. You do not want to do that and the reason the hospital's doing that isn't because those doctors don't care. Those doctors care, they're not working these hours not putting their lives at risk with used masks. It's because they're not allowed by their bosses to do the things that they would like to do and that is unacceptable. Let's put power back in the doctor's hands.

Mansoor:

Thank you, Dave. If I'd make a pop suggestion, there's a doctor, Dr. Dave Lippert, he's amazing anesthesiologist, out of Calgary. He's one of the few anesthesiologist, Dr. David Lippert, MD Anesthesiologist, and he is the one by the way, introducing Lidocaine intravenously to help dramatically reduce the cytokine storm.

Dave:

Oh, smart. Yeah, of course,

Mansoor:

By the way. If you want to talk to someone at an MD, just brilliant level, who is not confined by the... well, I won't use colorful language. He's someone you should speak to and he can really educate your audience.

Dave:

Will you introduce me? Oh, and speaking of Lidocaine, I have another hack. You want to know this one? I don't think you know it and I think it'd be useful for you and everyone else.

Mansoor:

Go for it.

Dave:

I'm so happy you said that. One of the things that I learned, and this came from a Northern California Cranio-facial clinic, Dwight Jennings, who's been on the show first a hundred episodes going way back, it's a dentist who looks at Substance P and systemic inflammation from bite alignment. He was in one of the chapters of Superhuman and he taught me this, that's like 15 years ago, if you're just starting to get a cold, i.e. any virus and you feel that tickle in the back of your throat, you take 5% Lidocaine, you can use Solarcaine, anything like that and you put it all over your forehead, all over your trigeminal nerve, all over both sides of your neck, your chest and the back of your neck. Guess what's right there?

Dave:

The trigeminal is very close to the vagas nerve, which integrates the entire body and Lidocaine stops inflammation of nerves. That's one of the reasons it's probably working intravenously. So you smear the topical stuff on and magically, and this actually works, you can turn a cold around, if you do it in the first maybe two to four hours, and it's just by turning down Substance P in all of the stuff. Trust me, the IL-6 and all of the cytokines are way downstream from Substance P, but they cannot exist without Substance P. So Lidocaine is a badass intervention, intravenous, I'd never even thought of that. But just topically you can do that when you're starting to get a virus and it may fix it. I've had great results with that.

Dave:

In fact I have a spray like hospital grade, what they would do for sutures. I have that stuff because my wife's an ER doctor and man, that stuff is amazing.

Mansoor:

I'll make the introduction to you.

Dave:

Mansoor thank you for coming on from The DNA Company. I am a huge fan of what you're doing. The fact that you've looked at my genes, you've sent me my report, way ahead of all of this. So I actually know way more about lung permeability and my susceptibility and all. It makes me feel like I have more control over my own Biology. So thank you for that. That's just a plug for the work you're doing and for the information you're sharing about genetics in a way that I've never seen anywhere else and thanks for your wisdom and knowledge on the show today. It's been fascinating and helpful. Thank you.

Mansoor:

Absolutely an honor Dave. The truth of it is I learn more every time I speak to you then you probably learned from me, so thank you. Thank you.

Dave:

You're welcome. Your website, thednacompany.com, very easy to remember and people can find out more about your work there and I don't know, are you guys even doing active testing or the lab shut down because it's being used for other things?

Mansoor:

Well, temporarily we've actually now switched all of our efforts into the COVID response. We're doing some cool things there. We've just gotten the first rapid class one Health Canada approved for an app that we're creating, Dave. But this app is not going to be asking you just a normal questions of viral infection symptoms. It's going to be bringing in all of these, the ripple effect things that people need to be aware of. So very proud of it. I'll make an introduction to David Lippert, one of the brightest forward thinking doctors that I've met and Dave, it's an absolute honor always.

Dave:

Thank you very much, Mansoor. See you soon.

Mansoor:

Bye, bye.

Dave:

Bye.