# The Power of Peptides & Cell Danger Response

Matthew Cook, M.D. interviewing
**Eric Gordon, M.D.**

**Matthew Cook, M.D.**
Welcome to the Peptide Summit. My name's Dr. Matt Cook, and I'm here with my very good friend, Dr. Eric Gordon. He's the president of Gordon Medical Research and the clinical director of Gordon Medical Associates. And he's one of the best doctors that I know. He's a deep thinker. He's an amazing person. And he's one of my favorite people to talk to. And so when I found out that today, actually I knew that I was talking to him, I was just a 100% looking forward to getting into talking about complex illness, how to think about peptides, and how to think of taking care of really complex, difficult immune problems, be that long COVID, be that Lyme disease, be that mold. And so let's get into it. Welcome to the Peptide Summit. And I'm just totally delighted to have you here, Eric.

**Eric Gordon, M.D.**
Well, thank you, thank you, Matt. That was a very kind introduction. Yeah, you're one of my favorite people also. Just love 'cause every time I talk to you, I learn something which is just always fun, 'cause this world of, I call it the chronic complex illness is something that is just an amazing journey. You learn humility everyday and you get excited everyday 'cause you bump into people who you can help and that really fills you with humility when you realize you've tried and tried. And then you find people who've been sick for years and you press the right buttons or help them just take the right steps and they get better. And that's the amazing thing about medicine I think and especially the kind of medicine that you and I get to practice which is a joy. I feel bad sometimes for the guys who are stuck with the cookbook medicine instead of the ability to use your mind and really listen, have the time that we get to listen to our patients. So it's amazing. But chronic illness, for me, is just really understanding how the immune system has gotten confused. People often think that their immune systems are broken, and they're rare, but that does exist. There are people who have deficiencies in parts of the immune system that are just not strong enough and that's there. But the vast majority of the people that you and I see

were people who are otherwise healthy until a certain age and then one or two or three events happened and they started getting sick and then along the way they just stayed sick. And usually those people, they're not broken which is the good news, but the system is a little confused. And the model that really helped me understand this was developed by Dr. Naviaux, Robert Naviaux, or Bob as he likes to be called amongst his friends, is that of what he named the cell danger response. And he's kind of made that a little bigger now calling it the health cycle. But the cell danger response aspect of it has allowed me to make more sense out of the symptoms and immune dysregulations that we come in contact every day. And it's one of those concepts that I can make very confusing, because when I first learnt it, I learnt it by reading his papers and talking with him.

And he's such a fount of knowledge about biochemistry that I would try to follow all the details and get thoroughly confused, 'cause I would reach my level of ignorance. And so I have to be careful when I explain it to people, 'cause as you well know, the better you know something, the simpler you can explain it. So just as an overarching idea, the cell danger response just explains that when your body is confronted with danger of any kind, stress of any kind, the mitochondria, the energy-producing aspect of the cell, the organelle in the cell that we think of as an energy producer, also takes on its other role of conductor of the immune response, okay. And the cell danger response, it's just realizing that there's kind of three phases of what your body does when it is exposed to danger. And it doesn't have to go through all three steps when the injury is mild. In the everyday stresses of things, it kinda skirts them.

But when you have a significant injury, whether it's a cut, a wound, or an infection, or a toxic exposure, it has to go through these three steps of first repairing the injured cell and also limiting the energy supply for the intruder, because usually this was designed to fight viruses probably and maybe prevent the tying up of toxins, especially some of the things that tie up sulfur groups. Okay, but now we're getting too many details. Just think of it simply. The mitochondria, they sense that they're not getting as much nutrients as they should be getting. And when that happens, they begin to turn off, they turn down the production of ATP. And that way they deprive energy and raw materials to the intruder. I always say it's a little bit like in the old days you would burn the fields and seal up the castle. And that's what happens. The cell during that CDR1, cell membrane thickens, so things don't get out as easily and new information doesn't get in as easily. And so that's CDR1. CDR2 is you begin to repair. You begin to build new cells. And at

that point, the mitochondria are working, but your cell is still pretty dependent on glucose. And in CDR3, the cell is repaired and it begins to really restore the communication between it and the other cells around it. So I mean each one of these things can be very detailed. So it's one, two, three. Limit the reproduction of the intruder. Two, repair the damage that was done. And three, restore communication between that cell and the body. Now, and many diseases happen because parts of our system, parts of our organs get stuck in one of those three places. We can see heart disease and diabetes happening when the cell gets stuck in that second place where it's rebuilding, but it's not restoring full communication. And so you get scarring or just hypertrophy of parts of the organ. So.

**Matthew Cook, M.D.**
Okay, so then I'll take that. So then, so cell danger response is cell is faced with stress. And let's for today, we're kind of thinking about immune stress, 'cause we're thinking about patients with chronic infections or immune dysregulation from chronic infections that may be viral or may be postviral, or may be bacterial like things like Lyme disease or long COVID.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
And so then as a result of that stress, the cells sort of go into a protective mode where they don't make energy as efficiently or as usefully in the mitochondria to sort of downregulate energy and kinda potentially not. And then could that explain symptoms of fatigue for example?

**Eric Gordon, M.D.**
Yes, oh, absolutely. And that's why when people are really ill, taking more CoQ10 and carnitine and alpha-lipoic acid and all those good things don't do much. And it's very frustrating. You see a lot of people when they're really ill, they come in with shopping bags full of supplements, and it's not changing much. Now as they get better, those things start to work. You see a lot of people who are like just a little tired, they take the CoQ10 and other supplements, and they feel better. I mean this stuff really works, but it only works when your body can actually use it. And when you're in that CDR1 and sometimes in CDR2, you're not able to fully make use of these nutrients because the mitochondria have changed their form and their shape and their function. And see, they're not broken. For a long time people in our community looked, and many of them still do

actually, think about the mitochondria as being sick when people have fatigue. But they're not sick. They're acting just like they're supposed to do. This is their function. Their function is to limit the raw materials available to the virus and to get the nucleus to start producing pro-oxidant chemicals, because those pro-oxidants are what we use to kill bugs, to kill other things. So they're not bad. They're only bad when they get stuck on. And I think that's the essence. I think actually of all the words that I said, the most important thing for people to realize is that when you're ill, most illnesses that develop in our adulthood are not because the system is broken. It's because it's stuck in a loop of trying to fix a problem that it can't quite complete fixing, okay. But it's different than the organ or the cell is damaged. It's often just stuck reacting to a signal that may or may not be there. I mean we were talking just long COVID is the great example or chronic Lyme. I mean chronic Lyme is something that's been dear to my heart for the last 20 something years ever since I started really actively treating it. We've had that great debate. Do we have to kill the bug? Or do we have to detox the body? And or as the infectious disease doctors like to say, if you've killed the bug for a month, you're done killing, and now you have post-Lyme syndrome which they feel is an autoimmune disease. Well, I think all of that is true. It just depends on the individual. And it's often there in varying degrees. But many times what we see is that sometimes the bug can be gone, but a piece of the bug can be left in the system.

**Matthew Cook, M.D.**
Oh, so that's so good, 'cause that's basically kind of like what's happening with long COVID. The virus is gone, the virus is not replicating in the body anymore, but there's a little spike protein that may be floating around in the body.

**Eric Gordon, M.D.**
Yep, and then it's interesting because Dr. Bruce Patterson, the fellow who's kind of proposed this concept of the S1, that part of the spike protein being stuck in some of our white blood cells, he's also done some work that suggests that there's some glycoprotein from Lyme that gets stuck in the system. And God knows. And to be fair, some of the naturopaths that I worked with early on, actually Byron White was one of them who would, actually he even developed in his formulas these things when he said he would get the cell to release the particles. And I say, mm-hmm. I just didn't understand how he knew this, but he was doing these things intuitively. But I think he, it looks like, he was right, 'cause I'd always wonder why sometimes his remedies, one or two drops, would like really flare the system. It couldn't have been the herbs 'cause there was nothing in there. And it does seem that that's true that we're left with pieces of often proteins or could be

combinations of pieces of these bacteria and viruses that keep stimulating our immune system, and the bug is gone. So we can sometimes get the immune system to relax. It can reboot itself. Neil Nathan had a great, I mean I have to say that was one of his great phrases is 'cause it really is is that just like you unplug your computer and you plug it back in and it starts to work again, sometimes when we can get the body to change its pattern, okay, it can go back to normal.

**Matthew Cook, M.D.**
That's why I named my company BioReset.

**Eric Gordon, M.D.**
Right, that is--

**Matthew Cook, M.D.**
It was like that idea and we were doing so many stellate ganglion blocks. We were thinking of like a biological reset of the brain. But in a way, it's a reset of the immune system. It's a reset of neurological physiology. And everything is sort of intimately tied together. So then imagine, so we go back to this, 'cause I wanna repeat what you said and then repeat, and then kind of continue along this line. I like it. So let's say there's an infection, there's some physiological stress, and then as a result of that stress, one thing that would be a cell danger response type of thing that would happen is is the mitochondria start to pull back, and then the cell basically goes into a little bit of a dysfunctional state because it's reacting against a virus. Now not only could that happen in an active viral infection or in an active like Lyme Borrelia or Bartonella function. If there was a little bit of the protein of that bacteria or virus that happened to stick around in the immune system, that could also in certain parts of the body, or wherever it was being affected, lead to a dysfunctional, either cell biology state, cell danger, or a dysfunctional sort of immune system in general if some of the cells in the immune system were being affected by that piece of infection.

**Eric Gordon, M.D.**
It's this circle. And one thing I just wanna, see, we all, I mean again I don't wanna, words. But, see, the cells aren't dysfunctional. The cell is doing the normal function that it's supposed to do, because when you get infected with a virus, you wanna suddenly switch and you wanna deprive the virus of nucleotides so it can't build its own machinery.

**Matthew Cook, M.D.**
Okay.

**Eric Gordon, M.D.**
This is a good response. But I always like to compare things to psychology, because psychology and like Chinese medicine and Indian and Ayurvedic, they have much better stories than we or better ways of putting things, 'cause medicine, because we want to know A causes B, we tend to get very linear which is really useful, but it's not good at understanding broad concepts. It's good at understanding that when we break the system apart, we can use very linear concept, A caused B, and that's really great. But when we're talking about an interactive system with trillions of interactions happening, then we have to be a little more loose and we have to have a story, okay. And it doesn't make it less scientific, because it makes it more accurate about what's really happening. So what I'm saying is that when you learn a behavior that, anger is the best example, okay. If you learn when you're young to express anger clearly, okay, you can often get your needs met, okay. But if you use that tool over and over again for everything, you have a fairly dysfunctional life. I mean angry people, they might get what they want, but they don't get what they really want which is friends and lover. Like there's a harshness to their lives. There's an emptiness.

**Matthew Cook, M.D.**
Yep.

**Eric Gordon, M.D.**
We can all see that. We know people who are angry all the time. You might like them, but hmm. Well, that's what an immune system that is always going after an enemy is like, okay. It's angry all the time. Now if you're too passive and just nice to everybody, well, you can be well-loved, but you kinda get stomped on a lot. It's being able to have that place where you can be appropriately angry in the moment and then relax and go back to a more normal easy interaction with the world. And that's what we want for our immune system. And so that's

**Matthew Cook, M.D.**
Okay. I'm gonna take that. So then imagine that I've got this balance between an immune system that's too passive that's doing nothing, and too angry that's kind of fighting too hard. There's a term called immune regulation, immune system regulation, and it turns out everything

that is we think of as good, stem cells, certain biologics, peptides, almost all things that are helpful for immune problems, in some way, regulate and balance the immune system. Tell me about that. Tell me how you think about that, how you put that together.

**Eric Gordon, M.D.**
Well, to me, that's why I love those things. I mean I include basically herbs, ozone, exosomes, stem cells, peptides. These are all things that balance the immune system. They give the immune system enough information and let the immune system then take what it needs to restore balance, because is that most of the time when you have immune dysregulation or the dysregulation of the immune system is because some cell type, whether it's your mast cell, or more likely some Treg cell that's not working like it should, or a toxin that your body can't get rid of and it keeps pressing the alarm button, because it keeps depriving some group of cells of the information, of the nutrient that it needs, and that turns on the mitochondria to go, there's danger here. I'm gonna tell you a little bit more about the CDR. One of the main tenets of the CDR is that when the mitochondria senses danger, it starts to put ATP, the normal kind of like the gas of your body, the way you store most of your energy is ATP. And it usually is a very, very minuscule amount on the outside of the cell surface. It goes up like a millionfold when that mitochondria senses danger, okay. And that is a nonspecific immune activation that tells your body there's danger. That signals your immune system at a very basic level.

This is another example of peptides, 'cause ATP is a nucleotide, it's not quite a peptide, but these smaller molecules that are nonspecific signals, and then we take our immune system, to, first, the innate immune system just goes danger, and it's designed to recognize like all four-legged creatures , and so it'll try to kill you whether you're a cat or a dog. And then the acquired immune system begins to come on and it can begin to discriminate. But when you keep releasing ATP, you keep triggering that innate immune system. So in order to get the anger out of your body, you have to find a way to quiet that down, okay. And that's where these anti-inflammatory things such as, as you said, exosomes, and the peptides, and just anything that has a strong anti-inflammatory signal, it can sometimes it's like, again instead of going into the myriad details of biochemistry which every time you read about immunology, we keep learning another detail, okay. And that's why I said it's better to think in these overwhelming stories, okay, or not overwhelm, overarching stories of like safety and danger, 'cause that actually gives us more information. So when the system gets a little bit of information that says things are safer, and we

kinda get like an immune cell, like again, say, when we quiet the mast cell down, okay, the mast cells are a great example, you quiet the mast cell down, then the rest of the body quiets down, okay. And if you do that long enough, and so it's just like people. And when you have a really angry person, and you can really relax them and make them feel safe, okay, they stop causing trouble.

**Matthew Cook, M.D.**
Right.

**Eric Gordon, M.D.**
Like when you're trying to explain it through the immunology, you get more and more details and more and more story, which I love, but it doesn't really, it helps me understand what happens, but when you give somebody exosomes or like KPV or some of the other or BPC, it's nice to know

**Matthew Cook, M.D.**
These are peptides.

**Eric Gordon, M.D.**
Yeah, these are peptides. It's nice to know we can read about the research that shows, well, maybe KPV might have some effect on lowering TNF-alpha or some obscure molecule, okay. But at the end of the day, what we have to understand is that the system quiets down, okay, 'cause the explanation is nice to understand, but it's still only partial explanation. It's just that we have to get that the body is in constant balance. And when you do a stellate ganglion, I mean those are like riff on one thing you said before. Like you do the stella ganglion block, you're quieting the sympathetic nervous system, and that quiets the immune system, because it's one big bag of information. They're all talking to each other. And so that's what we have to keep in mind when we deal with chronic illness is that don't get hung up on having to fix one thing. You influence one system and then you see if the body goes along with you. And that's why there are so many different therapies that work. Everybody always wants the one therapy that's gonna make them better. And the beauty is that, I'm sure there is the disease that needs the one therapy, but many times if you can quiet down one aspect of the immune system and make the body feel a little safe, I mean that's where, or for some people, prayer and meditation or just being in a quiet environment begins to allow healing.

**Matthew Cook, M.D.**
Mm-hmm.

**Eric Gordon, M.D.**
And for other people that's not gonna work. It doesn't mean that being in a quiet environment and a healing environment doesn't help you heal.

**Matthew Cook, M.D.**
Okay, perfect. So then now I'm gonna tie this together and I'm gonna take us down into a little bit of a journey into this thing called CIRS. And you've been at this longer than anybody else that I know, and then I'm gonna agree with you on almost everything, so then that's gonna be good. But we'll talk about this. And I think this is all gonna come together, but imagine that somebody may have gotten exposed to a water-damaged building and then they had mold, and then that mold causes inflammation in the central nervous system that, and call that topic one. Another thing that could happen, topic two, is is maybe you got bit by a tick, and then you can either have a little bit of the remnants of that bacteria, the classic one is Borrelia, or maybe you still have that bacteria living in your body as a stealth infection and it can live inside of cells, or Bartonella or maybe Epstein-Barr. So there's a whole bunch of different infections that we've been taking care of for a long time, and these have been challenging infections for people, because once they sort of take hold and have their effect on the body, the body goes into this angry immune system state. And so cell danger response is one way of describing that angry immune system. Another way of describing that angry immune system is CIRS. And I think that fundamentally it could be Lyme disease, it could be mold. And so we can talk about the biology, a little bit of that. Tell me about CIRS and how you think about it, and then we're gonna go into some of the interesting testing and epigenetics around that.

**Eric Gordon, M.D.**
Well, the interesting thing, I mean CIRS, I mean it's been around for a while. I mean I always think that this is Ritchie Shoemaker's concept even. I'm sure other people have like all great ideas. They come from many areas. And Ritchie is somebody who I feel has done an immense, I mean for myself personally, he really opened my eyes to just so many pieces of immunology and how the body works. I have great respect for Ritchie. And with the chronic inflammatory response syndrome, I mean that is just another way of talking about the CDR. I mean 'cause, as I said, they're all basically, we're just looking through slightly different lenses. And I sometimes I think

would argue that many of the things that he calls, that labels CIRS are what happens when you are stuck in that CDR2. But that's just playing back and forth. And Ritchie came from the world of toxins, okay, of biologic toxins. His first experience was with Cyanobacteria, and that's how he came up with the brilliant idea of cholestyramine. And I mean naturopaths have used binders for a long time, but Richie was the one who really like pushed it forward. Serendipitous, I mean this is what makes, well, I have great, great respect for his mind is that that serendipitous realization that he treated somebody for diarrhea and he gave them cholestyramine which can stop diarrhea, and it cleared their mind. And he went, oh my God, this isn't, what's going on here? And he kept doing deep dives. So over the years he expanded this concept and he started to really work with initially with a lot of mold. And now he's expanded it to Actinobacteria, actinomycetes, actinomycetes. So it's bacteria as well as mold, water-damaged building are his common theme that these critters, which are ubiquitous in the environment, overgrow when we give them plaster board and water, or basically any carbohydrates or like wood and water sitting will get a lot of critters to grow.

And they produce, normally in the environment, these are background levels, but when they get concentrated, they start to affect people and especially sensitive people. And one of the things that I believe is that most of us are able to deal with most of the Actinobacteria toxins and the mycotoxins unless we have something else that has screwed up our system and has changed our immune system, and that's often in my mind, Lyme or some other chronic bacterial infection, but that may or may not be true. That's one of the reasons why I think I, over the years, I've always done Dr. Shoemaker's testing, but I've always disagreed with him on what it means, because he often felt that his biomarkers for the chronic inflammatory response syndrome in the early days were reflective of mold. And to my mind, that's where we, ah, no. They were just markers that your innate immune system is pissed off, okay. He would measure your C4A, your tumor necrosis, your TGF-beta one, not tumor, MSH, MMP-9. These are all alphabet soup of your immunology.

**Matthew Cook, M.D.**
How would you define innate immune system for somebody who's first listening to this?

**Eric Gordon, M.D.**
Okay, well, the innate immune system is the immune system that activates that first three days or especially in that first three days of infection or injury, or in the first few hours of injury. That

involve your neutrophils. Like I said, this is an immune system that I said in the beginning that recognizes patterns, okay, of danger. It's not specific. It doesn't know if you're dealing with Lyme or influenza or COVID. It just knows that the cell is infected with something that's using its energy, and the cell signals that it's in danger, and the neutrophil will come and kill that cell, okay. It's very primitive but very effective. Without the innate immune system, we're dead. Acquired immune system, you can have deficiencies in and missing parts of, and you might get a lot of sinus infections but you do okay. You kind of can fetch along there. So the innate immune system is just your first response, okay. Your acquired immune system takes usually a few days to get going, and that's why we give people vaccines, to touch up interesting subject, is because the vaccines train our immune system so when we see the infection, we already know that it's x, it's Joe, it's not just anybody, okay. So, anyway, so what Dr. Shoemaker did with the chronic inflammatory response syndrome is that he started to see that, well, that these were nonspecific immune markers, but they're often related to water-damaged building exposure.

For a while they ran rampant in people. And in my experience, the water-damaged building aspect or the mold exposure, whether it be, is a component of what's going on. And that's where we've differed over the years, because Dr. Shoemaker really, his idea was that Lyme, if you treated Lyme for three weeks with antibiotics, it was gone. And the IGeneX tests were just too sensitive and were inaccurate and blah, blah, blah, blah. People who I really respect, many of them still believe that. And I just think that that's what happens when you don't treat enough people with this, 'cause if you're just treating. The CIRS treatments, the pyramid that they have for treating CIRS is very, very nice, but if you don't know how to deal with the infections as well, or with the mast cell issue, it's everything for most people. Now there's luckily there's a lot of people who if they just follow the CIRS protocol will improve and will get better. I mean--

**Matthew Cook, M.D.**
A matter of fact. So then this is a good one. And so then if I was to kind of contextualize that within the story that you said, then certain triggers can come in, and trigger could be an immune conversation or it could be an emotional conversation. We get triggered if certain things happen that we didn't want to happen. And so then a trigger could trigger the immune system into being kind of angry. And then when that happens, then there's a whole kinda bunch of consequences of that. One of the things that could trigger could be any of the, we call them vector-borne infections, so ticks, Bartonella, Borrelia, all of those things that are in the Lyme category. So, and now water-damaged building could be mold, could be actinomycetes, could

be gram-negative rods. It's probably a little bit of all of those. Viral things could be things like Epstein-Barr and CMB, could be long COVID. And we're hearing more people say, oh, long COVID kind of begins to look like CIRS. And then I think for people like you and me, it's almost like that angry immune system walks in the door. And I started realizing, boy, the long COVID patients look just like all of the patients that we've been taking care of for the last 10 years.

**Eric Gordon, M.D.**
Yeah, and, no, absolutely, they look the same. And that's why I so appreciate Dr. Patterson's work because he gave us some new tools. I mean that was what I really appreciated is 'cause by identifying that the fact that these monocytes, which are a white blood cell that just for people, that in the bloodstream are monocytes, the same cell if it's in your tissue is called a macrophage. Welcome to why immunologists should be shot because, and just biology. We have three names for everything, because everything was usually discovered by different people at different times, given the same name until we figure out that it was the same thing, but we never go back to one name. It just depends on what group you belong to. So, anyway, sorry about that, but.

**Matthew Cook, M.D.**
So then here we go we've got this cell. It's a cell in the immune system called the monocyte. So then that monocyte, let's say that person had COVID, that monocyte is gonna be one of the white blood cells that's gonna go to the lungs or the sinuses or wherever it is, and it's gonna start an immune response to try and fight that viral infection. Also if you got vaccinated, that monocyte might come over and pick up some of that spike protein as part of generating an immune response to the vaccine. And so then whether that monocyte picked up some S1 protein in your airway or whether it picked it up from the vaccine, then now that monocyte has got a hold onto that protein. And so there's this theory that Dr. Patterson that that monocyte becomes inflammatory and then is part of the angry immune system. That's like a new video game.

**Eric Gordon, M.D.**
Yeah. Well, again that monocyte should do that, but it's supposed to go away. See, this is the whole point is that these cells should have limited lifespan. The failure to die in the body is like in what the extreme is cancer, but chronic inflammatory diseases are the other example of cells and cells that don't die when they're supposed to. I've been thinking a lot about this. A lot of our chronically ill people have very high Epstein-Barr, HH-6, CMV, all these herpes family viruses that

have very high IgGs. They stay forever. I mean, and we're supposed to have low levels of these hanging around so we do recognize the bug when we see it again and we don't get sick. We just go, oh, it's there, and we can knock out a few cells that have it and go on. But people who stay chronically ill have very high levels of these. And immunoglobulins are inflammatory. They help set off other cells. So I think that's part of this long-standing issue. By getting back to the long COVID people, the insight that Dr. Patterson has given us that when it's a monocyte involved, and we don't know how many other chronic infections have this mechanism. I mean that's the issue is that we always wind up with like, we learn a new mechanism and we think it's in everybody. We don't know how many other chronic. Like he has worked in the past on dengue. That's what got him into this. So maybe chronic dengue is the same thing. You got this monocyte that is holding onto a piece of protein that it should have destroyed, it should have either destroyed the protein or the monocyte itself should have died in which case the protein would gotten rid of as well, and the rest of us do fine. Everybody else, 'cause, God knows, how many hundred million Americans have had been vaccinated or have COVID by now. And most of us don't have this problem.

**Matthew Cook, M.D.**
Right.

**Eric Gordon, M.D.**
So when things are working well, this doesn't happen. It's a failure to self-regulate. It's a failure for that monocyte to get the signal to die. And that's where I'm tying this into this whole story of persistent noise. I mean this is why people get mast cell activation, okay, is because you have a persistent immune irritant that keeps turning on the mast cells, and after a while, you probably developed clones of mast cells that are now hyper-vigilant, okay, because like. Well, just to talk about the mast cells for a minute, I mean 'cause that's a big issue. I mean like I always say every few years we learn something new. I remember like it was all Lyme, then it was all babesia, then it was all Bartonella.

**Matthew Cook, M.D.**
But we were at the meeting, I was sitting with you at the meeting when he gave the lecture on mast cell, remember, at the iLet meeting? When was that?

**Eric Gordon, M.D.**
Yeah, yeah, yeah.

**Matthew Cook, M.D.**
Nobody knew about it at that time.

**Eric Gordon, M.D.**
Well, I mean Dr. Afrin, I mean I knew about it early because, again, I'm learning everything from my patients. I had a very, very smart patient who she had migraines and severe GERD, and she got scoped and she actually had, even they found, this was because the elevated mast cells in her esophagus. And she quickly right after that found Dr. Afrin's book and sent it to me and suddenly I'm like, oh my God, it made so much sense. I mean like I've been treating all these people with migraines, with GERD, with irritable bowel, and with interstitial cystitis. And like his point is when you see people with four or five diseases, maybe they don't have four or five different diseases. Maybe they got one thing. Now what we had to teach Dr. Afrin was that these persistent, 'cause he thought these just happened. I mean I had dinner with him many years ago when he first started teaching this stuff, and he was, this happens, and I tell him, no, it's happening because these people have chronic infections. And it took him a few years before he came around to that. He's a regular doc and he's a brilliant regular doctor, so he thinks, but it took them a while to get that, yeah, if you keep bombarding the immune system with noise, okay, which is what a chronic infection does, it keeps telling your body that you're in danger. And I say this is what COVID has done to so many. I just wanna, my one little rant and I'll shut up. But COVID has done this to so many of my patients, and I hate it, is that COVID is bad, no question about it, but I've had so many people who are now living in utter fear, which is the last thing an already upregulated immune system needs

**Matthew Cook, M.D.**
Right.

**Eric Gordon, M.D.**
Is to be in constant fear. And we have done that and I think it's just a terrible disservice, because if you're 40 years old and even if you've got chronic inflammatory illness, you're probably, my experience is you're not dying from COVID, okay. I haven't lost any patients to COVID, 'cause we, A, can treat them. That's another dirty secret. There are lots of treatments for COVID, but the

point is they're not dying. They're not hypertensive older people dying, who were dying. Now they're not even dying, thank God. So it's just fear is such a driver of the immune system. And I just beg people to like please don't fall into that place 'cause--

**Matthew Cook, M.D.**
Right. No, I like it. There's a bimodal distribution on the fear too, because that is enjoyable for me to kinda meet some of the people that don't have any fear, and it's kind of entertaining. We see less of that in California.

**Eric Gordon, M.D.**
Yes, unfortunately it's--

**Matthew Cook, M.D.**
But so then I'm gonna take you on this, and what I wanted to do was kinda talk through a handful of these things, and we're gonna then kinda think about, a little bit about testing, a little bit about therapy. So then people can get these infections, and so we've been talking about them, and there's a host of different ones, and it's basically the obvious ones that affect people. And then as a result of that, there are these cells, and these cells, these mast cells. Talk me through, so when they get, and so then we talked about the angry immune system, so then I'm gonna kinda keep going on this theme. So then suddenly there's this angry mast cell, and if that mast cell, this immune cell gets too angry, then it will do something. I'm gonna let you say what that is. And then it turns out there's a bunch of normal medication that people have heard of, and some of those are gonna be just regular medicine you can get at Walgreens and CVS, and then another one, then we also use some peptides for this. But to try to deal with the fact that these cells are angry and a little bit overactive. But tell me about what that is and why infections do that to people.

**Eric Gordon, M.D.**
Well, first of all, the mast cell was our first immune cell. When you got a multicellular organism that finally reached a point that it actually had an immune system 'cause, the mast cell was the first of the immune cells. Before you had lymphocytes and T cells and B cells, mast cells came first, okay. Because of that, they talk to almost everything else in the body. We thought of mast cells, at least I did, as just something that had to do with allergy. When I first got into this, it was like mast cells, big deal, rashes, hives--

**Matthew Cook, M.D.**
'Cause they release histamine.

**Eric Gordon, M.D.**
Right, they release histamine, but the problem is they release about a thousand other chemicals as well, so they have myriad effects on people. But they turn on everything. That's why they can produce, that's why the mast cell, and depending on, and this is what makes this whole chronic illness thing so crazy is that depending on your genetics and how you're put together, your mast cells go off and you just might get migraines, while the other person is gonna get rashes and gonna get a tight throat. But some people don't get like the tight throat stuff. They just get diarrhea. It depends on which system is a little more hair-trigger in other ways, whereas your immune system a little more upregulated. That's why when you get, yeah, you can get more joint issues or you can get more gout issues. It just depends on how you're put together. So, but getting this mast cell quieted down, it's like getting the drunk out of the party. It all simmers down afterwards. You get rid of the one crazy rowdy person, and everybody else goes back to more or less normal conversation. They stop yelling and screaming because they have to talk over the crazy person or drunk person.

**Matthew Cook, M.D.**
So then what would be kind of give me your top three sort of over-the-counter type of medications, and then why do they help for mast cells that are overactive?

**Eric Gordon, M.D.**
The top three are just basically the antihistamines. The H2 blockers are the ones that like the Benadryl dot dot dot. And the H2s are like the Pepcid, Tagamet, one or the other. Basically any of the first generation of antacids more, well, not first, first and second generation of antacids. And then I prefer Zyrtec. I like an Allegra. Or if people have money, I think it's Xyzal or levocetirizine. I actually learned how to say that. One of the things about medicine is we have generic names which are usually unpronounceable but make doctors feel much more scientific. But it's the right hand, levo, it's the left-handed version of Claritin. Like most chemicals come in a left hand or a right-handed version. And so it's the left-handed version. And it seems to have some really nice, better anti-inflammatory effects except unfortunately it's a little expensive. So Zyrtec is probably my favorite for just starting off simply. But people who are very sensitive need to get these compounded. It's just easiest to start with the cheap stuff, but if you react to these, and if

you react to two of them, it's a good chance you're reacting to the fillers in the capsules and not the chemicals themselves, not 100%, but that's a pretty good guess. So--

**Matthew Cook, M.D.**
Okay, good, I'm gonna pause you there, Eric. So then what else? So imagine somebody might have gotten COVID and their immune system is angry, or they might have gotten bit by a tick and their immune system was angry, or they might live in an apartment, like I did that had mold in it, and then their immune system got angry. So any one of these things can cause the immune system to get angry, and then that primordial original immune cell got too activated, and then that can kinda get, that part of the immune system can get stuck active. And so then people can have symptoms that are kinda mast cell symptoms, and probably these were nebulous things that we weren't even paying attention to, but also maybe our environment is more toxic and so more people are having it, and then maybe more people are having infections certainly now. And so then as a result of that, so then what happened is is and people started giving these over-the-counter H1 and H2 blockers that are kinda histamine blockers that kind of calm down that cell. And so sometimes like people, well, certain foods then, once those mast cells get triggered, now all of a sudden certain foods, so like for example, like leftover meat that's been left out for a day can be a big trigger. So there's a variety of triggers. And so then somebody might come and see you, and then you would give them one of these medicines which can be very helpful for people. And there's a whole bunch of protocols around just calming down mast cell. Now then another thing that I could do is we could try to calm those mast cells down with peptides.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
Tell me about your thoughts on kind of that side of the equation.

**Eric Gordon, M.D.**
Yeah, well, again, and embarrassing, I haven't really done a deep dive on the literature directly related at mast cells, but they work on mast cells. I mean they work because the whole system is in communication. Mast cells are aggravated often because other cytokines, these are the chemicals that immune cells release to tell each other to come to the area or to reproduce, get

released. And a lot of these cytokines, and mast cells are very sensitive to these cytokines. And that's where we use things like, I really like the KPV and the TB-FRAG, TB4-FRAG, because the KPV is a derivative, is a piece of something called MSH, melanocyte-stimulating hormone, okay. And melanocyte-stimulating hormone is really cool thing. Obviously it does stimulate, you will get tan if you take melanocyte-stimulating hormone, but unfortunately the FDA took it off the market, oh, 20, I don't know, a long time ago, the effect 'cause the gynecologists were using it for a while, and I forget for what, but I think it was helpful for endometriosis, but I could be wrong there. It's a long time ago. I'm not sure about that. But, anyway, it was used, I think it was also used to help regulate cycles, women's cycles. But for some reason the FDA took it off the market. There was no danger, but I think they just didn't have enough studies. And then we had something called melanotoine 2 which is a derivative of MSH that also caused you to tan and could give erections as well. There's in fact another derivative of MSH is a medicine for women's libido which men also use. Anyways, goes down. Yeah, you keep breaking these chemicals down, and you get active things. Well, KPV is a very small part of the MSH but it seems to have a very powerful effect on the immune system, okay.

Very nice immune modulator. And it does help quiet mast cells, okay. And the same thing with the thymosin beta-4 FRAG. Again, the whole, if you use the TB-500 like the bigger piece of thymosin beta, you can actually stimulate your mast cells a little bit, but by using a fragment, we just give the quieting signals to the immune system. And that's what most people need, because, as I said, it's very rarely a failure to kill that keeps people in chronic illness. I mean it could be a failure to eradicate, but usually if we can get the immune. Again to make an analogy, if you're a trained fighter, you throw the appropriate punch, okay. If you are untrained or just angry, you just flail. And I think that's what the immune system is doing in many of our people. It's flailing, okay, 'cause when you quiet all, when you get the mast cells quieter, and you use some of these modulators to quiet the immune system, then all of a sudden, the infection is often controlled, okay. So that people have to understand we're not using immune suppressants, we're using modulation, so the cells that need to do the job can do it effectively rather than throwing everything out there and the signals get confused. I mean.

**Matthew Cook, M.D.**
Right. So then at a high level, go back to the story, and then a story is everything. A story, because the story, at the beginning there was a story. but then within that story is the secrets of

wisdom around how to get over something and get through something. And I think that you taught me this. This is gonna be something that you taught me.

**Eric Gordon, M.D.**
Oh.

**Matthew Cook, M.D.**
Which is when someone first comes with this angry immune system, there's so many things going on, 'cause if the mast cells are active, they might be active in five or 10 places. If there's a neurological infection, there might be eight or nine things going on related to that. If you can begin to mitigate some of those symptoms, it clears the water a little bit and allows you to see what's going on, but all of a sudden people start to feel better. And having a way to kind of describe and talk about things and process things, 'cause I call you and ask you questions, and also and then to talk to patients and be able to talk and guide them through the story. Then to go back to this specific example, and I'll give you another one, if your immune system's angry and it's reacting to everything, it is kind of like you're sitting there throwing punches, but probably none of them are gonna land. That KPV and those peptides that regulate that side of the immune system, suddenly you feel better. Go back to cell danger response, what I found is you give somebody some of the mitochondrial peptides and start to get them making energy again, or maybe stack that with other things like NAD, suddenly if they're actually making energy, they feel good. And so then I would say a third of complex illness is regulating the immune system, and then it's like getting people sort of, well, psychically, psychologically, spiritually, metabolically calm, and then spinning up energy so that there's efficiency of energy production. And then those two things dramatically change the trajectory of what it feels like to have a big problem.

**Eric Gordon, M.D.**
Yeah, and that was really important what you said there is that it's the order in which you do it, is that if you don't begin to calm the system a little bit, if you try to throw people with high energy stuff right off, again if they're just overworked, if they're just stressed and like they got a cold, and their immune system went off a little bit, but basically everything is working okay, that can sometimes push them through. But if they've been sick for a while and you really are stuck in either cell, whatever you wanna call it, the cell danger response or CIRS, you gotta take some of the fire down before you restore the energy or--

**Matthew Cook, M.D.**
So I've got a humbling story to tell you about that. This is unfortunately another thing that I learned from you. So then--

**Eric Gordon, M.D.**
I'm very, I wanna tell you 'cause I learn, I mean the reason we talk is I learn a lot. Your stories are always helpful to me for the next day.

**Matthew Cook, M.D.**
Yeah, and it's interesting 'cause it's kinda like on Who Wants to Be a Millionaire, oh, I'm gonna call my lifeline. And I have kinda eight or 10 people who are my lifelines that I call. So you're one of those. But so then, we both have done a lot of IV therapy for a long time. And so then we were early, some of the first people doing NAD therapy. And NAD is a derivative of vitamin B3, but it's kind of like currency in the body that can stimulate immune function, that can stimulate mitochondrial function, DNA repair, does all these things. And we like to give it as a part of our strategy of spinning up those mitochondria and getting energy. Some friends of mine used to, if you called the shot, if you got a shot of NAD, they used to call it best day ever, 'cause you would have energy and feel good and stuff like that. And so then I remember I was teaching you about it, and then you called me the next week and said, "Oh, guess what? "You can't give NAD first to really sick people." And that was a really, and that's an important insight, because it turns out if you give that too much stimulation while there's a lot of angry inflammation going on at the same time, that in a fragile person can be much too much.

**Eric Gordon, M.D.**
Yeah.

**Matthew Cook, M.D.**
So sequencing is crucially important. I just wanted to echo that.

**Eric Gordon, M.D.**
Yeah, yeah, I mean I learnt all this stuff because when I first came to California in '98, I inherited a bunch of patients from this fellow doctor, wonderful doctor, Dr. Jeffrey Anderson, who had been specializing in multiple chemical sensitivities and things of that sort. And he unfortunately got disabled from chemical exposure . But, and so I walked into these people who made no sense to

anything I'd ever seen before. They couldn't do anything. And so I learnt quickly that, yeah, step lightly, step very lightly. And then as I continued rolling into the really complex Lyme patients, 'cause again we had them, because Dr. Anderson, when he joined me, Wayne Anderson, he had been treating Lyme for almost 10 years already like under the tutelage of Joe Burrascano via the phone. And so we had all these, but what happened is that when he came to join me, he came along with all these patients who hadn't gotten better, because, again, we keep learning. And that's my great sadness is I know how many people I saw in the early 2000s and 2010 and even probably three years ago that I didn't help that I now know something that might help.

**Matthew Cook, M.D.**
Right, right.

**Eric Gordon, M.D.**
But unfortunately, it costs a lot of money to see us. So like when we're wrong, it's expensive learning process for us and especially for the patients. And I just wish that we could. I sometimes I think we should do is have a Rolodex of like the people who I didn't help, and I could go back and go, oh, wait a minute, I got it now.

**Matthew Cook, M.D.**
However, I have this kind of like Grateful Dead, like the idea with Grateful Dead in their music was that they shared, people would just share tapes, and they gave away their music.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
And what I'm trying to do is give away knowledge and talk about this, because if you think of it over the course of time, we were at the lecture where mast cell activation got sort of presented to the medical community.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
Now we're actually giving you things that you can take. There's supplements that you can take. There's these medications you can take. There's peptides. And then what I think is gonna happen is is, and there's such a community-based sort of approach that is as these ideas sort of come into more clarity of understanding among people, then suddenly the sequencing and the ability to kinda work their way through it is gonna come. The MSH is a big one. And interestingly, there's the theory that MSH actually is important in regulating mucosal barriers, so then people that have low MSH are more susceptible to infections in their sinuses which could be a place where there could be a biofilm to leaky gut. But then in terms of thinking about MSH and sort of the reason why CIRS causes low MSH, what are your thoughts on that?

**Eric Gordon, M.D.**
Well, as I said, I can only tell you what I learned from Dr. Shoemaker years ago. And I have to admit he might have new teachings now, but in the old days, he felt that the low MSH and low VIP was related to the MARCoNS, the multiply resistant, not multiply, the methicillin-resistant staph in the nose. And that created a hemolysin, a chemical that would break down these compounds that would split them up and destroy them. I don't really know. Again that was his concept. I don't know if that's his current thinking, but it definitely seems to work. And that was I think why he left the VIP, which was the one that you can still get, I mean over-the, not over-the-counter, for prescription, the nasal therapy, the vasoactive intestinal peptide, which works very similar to MSH. In many areas, it's interesting.

It also has antiparasitic effects. It also protects the mucus membrane. It also has very positive effects on the gut. Any inflammation anywhere, if you have anybody with the fibrosing lung disease, inhaling VIP actually will help. But, anyway, that being said, that's why his pyramid in a way with doctor, he was like saying the same thing I am that you have to be careful, you have to do things in an orderly fashion more or less. It's just that his pyramid is much more structured. Well, he's just a much more structured person, I guess you've figured out by now, I'm not very a, I'm little, hmm, I see the whole . And I haven't always followed his teachings. I've often used interventions at different times than he does. And I think you can. I think you might not get as excellent results if you don't do it in his order. But many times we're looking, as I said, just to put the fire out a little bit, so that person gets some respite and begins to get hope, because just like when you do the stellate gangling block, you are removing some sympathetic drive and let the

system kind of like take a breath. Well, hope that you can get possibly get better, that this isn't your life forever is the same thing. And so when we give somebody something that reduces the inflammation and lets them have a better day, we can restore hope, and that can trigger so many physiologic events. So I'm sorry I lost your question already. But, yeah, so.

**Matthew Cook, M.D.**
Okay, so then let me. So then I'm gonna give you this one. I think you'll probably agree with me but I'll be curious. And often we're having one conversation as an analogy to another conversation. So mold is a good one because mold we think is related to CIRS.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
And so then if we can talk about mold as sort of at a strategic high level, and then we understood a sequence of therapy, then as an analogy then we could begin to compare that to our thoughts of other things like long COVID and stuff like that. So then my idea on mold is is that one thing that happens is that somebody gets exposed to mold, and they may have this biofilm in their nose called MARCoNS, and then that can cause. And then the mycotoxins and Actinomyces can cause inflammation systemically that gets into the brain, and then as a result of that, cause inflammation around the optic nerves which is why that test called the visual contrast sensitivity starts to go off. And then the immune system gets angry, kinda goes back to what we were talking about before, and then the genetic system can kinda get angry as a result of that. So we've been doing this test, the GENIE test, which will look and begin to show that as a result of that immune system being angry, that we start to print more an inflammatory side of our genome, because we're kind of getting mobilized kinda to go have a big fight with this thing that has triggered and created stress for us. And then as a result of that, that can actually then cause a whole bunch of downstream aspects of our immune system to go haywire. One of those would be mast cell activation, and then another one of them could be that our ability to regulate the balance between fight or flight and rest and relax kind of goes haywire. And so then when people stand up, their blood vessels can't squeeze appropriately to keep their blood pressure normal. So they get lightheaded and pass out which is called PoTS. So then these are sort of some of the things that happen. Now then as we think about sequencing and then as we think

about taking care of these patients, then what I'm gonna suggest is that long COVID is gonna be somewhat, have a lot of overlap with that story that I just told. It's not 100% but many patients will behave like that. Then now traditionally in the mold conversation, what we did is, so that story that you told, oh boy, they took a binder, and then all of a sudden their brain got better. So the idea would be to take binders and kind of fix any infections in the nose. And then at the end, do something that would regulate broadly the inflammation at a genetic level and probably at many other levels for T regulatory cells, all these other things. Take VIP and it would calm things down, but you couldn't do it too soon so people would always wait. Now I wanna hear your opinion. What we found is is that the bio regulator peptides, you can give them much earlier and people start to feel better sooner. And so then suddenly. And then the KPV, which is a segment of MSH, which is this molecule that's too low in these patients. So we start to give them anti-inflammatory, immunomodulatory, and immuno-regulating peptides both at a brain level and at a blood vessel level. So I like Pinealon, I like Cortagen, I like Epitalon, I like Vesugen, which is the one for the blood vessels. And what I found is is that constellation sort of calms people down, and we get them feeling better, then we start to kinda spin up mitochondria and get them feeling even better. And then start to layer in things like VIP. So then suddenly it's not this long saga of waiting. And then what I think is is that if you think of that as sort of a framework, many of these other kind of chronic infections will behave quite well to algorithms like that. And then we could layer in other theories. But what do you think about that?

**Eric Gordon, M.D.**
Well, I have to say we're seeing the same thing. And it's Dr. Parpia who really led the way on that, because I was kind of hesitant with the oral peptides initially. I was like hmm. They're expensive and do I wanna given them and you gotta take. And she just had an intuition about them and went gung-ho. And that's exactly what we saw is that you can add them in early on and they allowed everything else to function better, because that's it. This is the point, whether we call it CIRS, or I mean 'cause as I said, that what you're seeing in the GENIE when that transcriptomics, like looking at how much RNA you're making, well, that happens because your mitochondria sent the signals. Well, this is where I won't go into that argument again. But, you know, what came first? Chicken or the egg? It's just that the signaling for chronic inflammation is on. And if you can change that signal, everything else is possible, okay. And that's what these peptides do. I just love your story. That I think is that is the way. I really think that maybe I've never asked Ritchie why he. I think he was waiting because he really felt that you had to deal with the MARCoNS and, I don't know why. Or maybe the VIP just doesn't does it by itself. But using this

combination of peptides really does set the stage and allow you then to get the patient to the next levels, which before this, we were walking, it was a lot harder to do. I used to call it pickup sticks. And by using the peptides, we've gotten rid of some of the trickiest of the pickup sticks. We've gotten places where we can be much more, like you say, you can be much quicker to then start adding things in to help increase energy.

**Matthew Cook, M.D.**
Right. And so then just so to give a little information away for people who are listening to this and thinking about this, Vilon is a bioregulator for the spleen and thymus. So we like that one for these patients. And I like that as at a milligram a day. And almost all of the bioregulators people can take a milligram a day, and they tend to be low, they tend to be small peptides, and so they tend not to create big reactions. And then we like Vesugen especially for people with PoTS. We like Cortagen and Pinealon also. And then we like Cardiogen also for people with PoTS. And so then we'll put sort of combinations of those together. And Dr. Khavinson, who is one of the great, I would say, doctors of the world, has used the bioregulator peptides as an injectable, but he also has them orally. I'm actually taking them. And I really like taking them. And so then they isolated them as extracts from organically raised animals. And so then the idea would be that these are small molecules, and all of the best peptides to me are these small peptides. GHK is a connective tissue peptide. It's great, it's small. And KPV. So suddenly there's a whole bunch of tools that we begin to have, some of them oral, some of them injectable that you can get away with giving to these sick patients. And it's amazing when you find something that you can get away with giving to them. And interestingly, Khavinson's been giving these to people for 30 years with very good results. And anytime you can get away with doing something for a long time that it's a signal to me that it's probably a good thing for sick people and it's probably a good thing for healthy people, which is probably an idea we share.

**Eric Gordon, M.D.**
Yeah, yeah. Oh, yeah, 'cause I mean I know you've done a lot of work in the anti-aging but regenerative medicine world, and what I've always seen is that anything that works for my really sick people is usually good medicine in different doses for people who wanna stay healthy.

**Matthew Cook, M.D.**
Right.

**Eric Gordon, M.D.**
It's like we're seeing where the healthy people are gonna wind up in one little aspect. But one of the peptides, I just wanna throw in there, that BPC topical is something sometimes mixed with GHK, but sometimes just by itself, 'cause one of those like cycles that we see with mast cells is people with the various levels of neck instabilities or just the chronic cervical instability stuff, and you have some really interesting ideas on that which I'm hopeful you'll talk about at another time. But so many people who have severe dysautonomia do have issues with lax ligaments. And lax ligaments get lax when we have chronic inflammation. So...

**Matthew Cook, M.D.**
Okay, 100%.

**Eric Gordon, M.D.**
It's around and around. And if you can lower the chronic inflammation through the use of peptides, those lax ligaments will tighten up a little bit, and those dysautonomic symptoms will diminish a little bit, sometimes a lot. So it's nice to have what I call virtuous cycles, things that we can go in there and start to fix. And then again the beauty of the body is that it heals. I mean like when I was a kid, I was a very short time I was an auto mechanic. If you don't do it right, it doesn't work. The beauty of the body is you just had to get close. And we have these inherent healing mechanisms that if we don't screw them up too badly, people get better and we just have to allow. And that's the beauty of the peptides and especially the ones that you mentioned. I can see supporting organ function in a very gentle manner. It sounds just like what the doctor ordered for getting people to the next step.

**Matthew Cook, M.D.**
And then as they, we should probably wrap it up, but as sort of a conversation, this trajectory sort of conversation of where to go, and then as we begin to think of these long COVID and some of these challenges, what we've seen, and I had a great talk with one of Patterson's doctors, and basically we went through, there's going to be a bimodal or trimodal distribution within long COVID. And so then so for example with the, when that monocyte gets triggered, then it has that spike protein, and one thing you could do is take an AIDS drug called the CCR5 antagonist which will kind of regulate that, and they combine that with a statin which kinda calms down the inflammation in the vascular system. And so then that's one idea of taking care of COVID vaccine injuries and then also taking care of long COVID.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
And there's some issues with that medication. There's a black box warning because it had some liver failure but that was in people that had hepatitis C or AIDS patients who were pretty sick. And so they had a hard time teasing that out. But then I've had that be extremely helpful for some people, but not for everyone. And so then we've had peptides be extremely helpful for some people, but not everyone, okay. And then another thing that, we're recording this now, by the time this goes live, you're gonna be doing the same plasmapheresis in your office.

**Eric Gordon, M.D.**
Right.

**Matthew Cook, M.D.**
That we do. And so Eric is a amazing doctor. And if you wanna go see him and kinda participate, one of the things that we do is we do this thing, plasmapheresis, where we run your blood through a plasma separator and we pull some of the plasma off. And then what that does is that pulls inflammation and toxicity out of the body and gives the immune system, by detoxing it, a chance to kind of regulate and come out of that kind of angry immune system situation.

**Eric Gordon, M.D.**
Well, just you know, again it goes back to thinking more and more about these excessive number of antibodies that sick people tend to have. And they are constant immune. They're noise. Like I said, they're just noise. The body doesn't like noise. It's listening very closely to a hum, and when there's noise in there, hmm, you start getting dysregulation.

**Matthew Cook, M.D.**
And that noise, and so then the antibodies are all floating around in the plasma, which is why taking some of them out kinda calms down that noise.

**Eric Gordon, M.D.**
Yep.

**Matthew Cook, M.D.**
And so then at a high level, and my goal, and I think we did it today, sort of talk with you, talk through some of the big immune challenges of the day, recognize that at a genetic level, at a blood-testing level, and at a symptom level. We have fairly good ways of beginning to kind of think about and talk about these problems. And then we've got a diversity of ways that we begin to regulate and calm down that immune system, peptides being one of them, but even over-the-counter medications, and then sophisticated medical procedures that we do. But then knowing that within that then, there's a song called "A Song for You." It was an old Leon Russell song.

**Eric Gordon, M.D.**
Yep, that's what I thought, yeah.

**Matthew Cook, M.D.**
Willie Nelson did it and Ray Charles. And he says, "If the melody doesn't come true, "my lose is in there hiding," is this kind of is an idea.

**Eric Gordon, M.D.**
Yeah.

**Matthew Cook, M.D.**
So then our love is, I would say, in here in this story. I think our story today is a hopeful story that there's hope on the horizon, and actually it's kind of here today.

**Eric Gordon, M.D.**
Yeah, no, it is, as I said, we have the invasive and the simple. And we just keep trying to find more of the simple, but we save the more invasive things when people really need it. But it's just to have that palette that we never had before and it's really growing and it's just very, very exciting that we have so many more abilities to help people. Now and fortunately if we could just stop the toxification of the planet, maybe we wouldn't need so many skillsets as treatments, but.

**Matthew Cook, M.D.**
Because of that toxification, I think we'll be in business for a long time so.

**Eric Gordon, M.D.**
Unfortunately, unfortunately.

**Matthew Cook, M.D.**
But then hopefully everybody could live in a beautiful place. I love that background. It looks like a healthy, you're in a healthy environment. I love you and I'm grateful to have you in my life. And thank you for being on the podcast. And we're gonna have to do a lot more of this.

**Eric Gordon, M.D.**
A pleasure, and as I said, next time I would love to keep on, we'll keep me on one track. That would be an amazing event. Okay, thank you, Matt.

**Matthew Cook, M.D.**
That was perfect, thank you so much.

**Eric Gordon, M.D.**
Okay.