Summit Introduction and Doctor Gupta's Background

Welcome everybody and Doctor Gupta to the Peptide and Bioregulator Summit. Or maybe it's the Bioregulator and Peptide Summit is the way I'm naming it because bioregulators are my fascination.

Now a little bit about Doctor Gupta is that he's dedicated his career really to solving one of the most misunderstood conditions in modern medicine, and that is thyroid disease.

He's a board certified family medicine physician, a certified functional medicine practitioner through the Institute of Functional Medicine, and he also holds a fellowship in integrative medicine.

So he this is a man who carries advanced certification, also in peptide therapy through the American Academy of Anti-Aging medicine. So the man knows of what he speaks.

Let's just be clear. He trained and practiced at one of the most respected institutions in the world, the Cleveland Clinic Center for Functional Medicine, where he worked alongside the pioneering doctor Mark Hyman.

And that experience shaped a clinical philosophy rooted not in managing symptoms but in uncovering and reversing the root causes of disease, which all of us who are here know is the key to getting lasting results.

He's also the best selling author of Reversing Hashimoto's. This is a book that's changed the way of patients and practitioners understand autoimmune thyroid disease.

And through his practice, his online education, and his growing community, he's become globally recognized as the world's Hashimoto's expert. So today he joins us for the bio regulator and Peptide Summit.

I'm so grateful to talk about the deep connection between thyroid health, immune function and the emerging role of peptides and bio regulators in helping patients truly heal, not just manage this crazy condition.

Please welcome with me, doctor Angel Gupta. Welcome. Thank you so much for having me over here. You know, that was a very generous introduction that you did.

And I am really grateful for that. And so great that you were putting up this summit, you know, with so many great speakers and talking about different facets of, you know, peptides and bio regulators.

And we were just discussing before this interviews that, you know, this is a current time, you know, where the peptides and bio regulators are getting so popular.

And this is the right time for people to know about them so they can utilize, you know, the health benefits of them. So finally, we are getting heard and they are getting available to majority of the people.

So thank you for putting up this summit. Well, it's my pleasure. You know, I think big motivation for me of putting this summit together is how much misinformation is out there.

And as the, you know, as this space grows and there's so much confusion around how to use peptides and bio regulators properly in practice, not just sourcing them from some crazy website online and experimenting on yourself.

I think it's just it's really raised the bar on how badly the education is needed and how badly people need to understand who are the practitioners and and medical doctors who really are able to who've studied this, who've done it in clinical practice, who are really able to guide them?

Because the thing about peptides and bio regulators is there incredibly powerful. But if you don't use them at the right time, in the right way, particularly with these complex conditions, at best you don't get any results.

At worst, you might get worse results. So this is where your wisdom and experience really comes into play. So I'm really excited for this conversation.

So let's start with our opening question, which is often a question I start with with people like you. Is that what? Was there a turning point in your clinical work that really changed how you viewed Hashimoto's?

Absolutely. So I think, you know, like we all, you know, as functional medicine provider, do not go into functional medicine or alternative medicine just because, you know, like we got interested.

Something happens in our own life. It kind of, you know, propels us into that direction. So I was a busy family medicine practitioner. After my residency, I was working in my private clinic.

Within a few years, you know, I started noticing certain things were creeping up in my life. I was having health issues. A lot of weight gain was happening.

A lot of gut related problems were experiencing random stomach pain. No idea what the pain was going on. Why was the pain coming to me? Plus, you know, I was feeling tired during the afternoon time to the point that I was taking naps during my lunch hour.

Hashimoto's Turning Point and Root-Cause Approach

Just a function of the whole day, and I was feeling brain foggy at the end of the day, feeling that, okay, well, I cannot just think about anything more than just going to bed or relaxing.

So then, you know, like initially I thought maybe it is stomach acid, you know, because I'm stressed out. Let me just start with, you know, like the over-the-counter medications.

Try that. You know, increasing the dose of medicine. PPIs were added. Nothing was working. What was going on with me? They added even more medications.

At one point of time, I was taking five different medications just to function to the day, but still, you know, weight, krypton creeping up. You know, the fatigue was relentless and things the stomach pain was still happening randomly. So then somebody suggested, well, why don't you look into this functional medicine?

Because, you know, this is where people go who do not get answers from. So I started trained into functional medicine. I kind of did a couple of modules with them and started implementing those things in my life, change some things in my diet, you know, it's from, you know, de-stressing in my regular routine and just some added some basic supplements.

And within one month of doing that, I saw great results. My stomach pain went away completely, and then within six months I was off all of those medications I lost pounds.

Managing was so high that even participated in a rugged maniac. So that's where I thought, well, I need to do functional medicine, you know, help more people like me because there were several of them.

So when I joined this functional medicine center at the Cleveland Clinic, and I started kind of noticing that I was attracting the subset of people, they were all middle aged females.

They're very similar symptoms as mine. They were all gaining weight. They were all tired. They had brain fog, gut problems. And one thing was common that they all had Hashimoto's or thyroid problems going on.

So that's where that intrigued me. That okay, well, simply connected with those people. And I started looking the

research of what is the root cause of their issues.

So slowly and slowly I developed this three step process, which I started implementing in my own clients over there, and we saw great results. And this was huge because in my medical practice, I was told that there is no medication out there.

There is nothing out there that can actually reverse a disease where you can actually lower the thyroid antibodies. So that was very promising for me.

And that's where prompted me to start working in Hashimoto's clients and helping them out. And that's what I've been doing for the last 7 to 8 years, implementing this process.

And, you know, getting the life back for all of these Hoshi patients. That's amazing. That's a great story. Now, you mentioned the the antibodies. So this is really a pivotal point in your practice where you often say that Hashimoto's is autoimmune first and thyroid second, which is which is interesting because it's not just the thyroid antibodies.

Now you're talking about the immune system misfiring somehow. What do you want clinicians and patients to really understand about this distinction? This this approaching thyroid issues from an immune system perspective.

So again, you know, like in every medical college out there. The only treatment that we have been told that a person comes up with a tire problem is give them with rocks in medicine.

Yeah. And you know, because they have low thyroid hormone give the levothyroxine everything is solved. Well, nobody is even talking about why a person has this hypothyroidism, which is this total immune dysregulation which is happening in a person's body.

And until we saw this immune dysregulation, their body is not going to get better. And this is where again, research proves us, because research says around 60 to 70% of people who are taking thyroid medications there is within normal range.

But still they continue to have symptoms. So that clearly tells us that the current treatment is not appropriate or not enough for majority of the people, and that is because of the underlying immune dysregulation.

Now, most people think that this underlying immune dysregulation is only damaging the thyroid. My research suggests it is a systemic problem and not a tired problem.

This immune system, you know, damages your mitochondria. Damaging your adrenals, damages your brain, damages your gut cells. Multiple places in your body are being damaged.

And that's the reason the symptoms that Hashimoto's or low thyroid comes up with is system wide. And again, replacing the thyroid hormone doesn't solve them because we are not working on the actual problem of the underlying auto immunity.

Yeah, yeah. That's so powerful. So what do you see. So that you talk about triggers in patients. Right. So there are very common triggers that are involved.

Both either I don't know if they're the same ones, but in the Hashimoto's. And we also have graves disease. Right. We have to remember this is there's two sides to this coin of thyroid imbalances if we want to call it, if we don't even want to give the label of disease, we're going to call them.

You know, there's two sides to the coin of a thyroid imbalance. So where do you what do you what are you seeing as the major triggers? I think there's maybe 4 or 5 that you really talk about quite a lot, which I think is really interesting for people to really understand.

Absolutely. So first of all, like understanding that what is auto moon disease is because again, most people when

they go to their doctors and ask, why did I get this a cease?

And they will just say, well, you know, like today your body decided to start making these antibodies. Just like that is not real. The research again gives us answers over here.

It says that auto immune diseases, whether it is Graves or Hashimoto's, is an interlink between the environmental factors and your genetic makeup. Now again, I want to wash over here as soon as a word use genetic makeup.

People think, oh, that means it is in my jeans. So it is hereditary, so I cannot do anything about it that is not real. You know, yes, you do have a pool of genes, but why are we seeing a big increase?

You know, exponential increase in automation diseases is an environmental factor. And those are the triggers that when our genetic pool get exposed to that further leads to producing of these antibodies.

And these are the triggers. It is very important to identify those. Then only you can work on them. So typical triggers that I see is first of all there's food sensitivities.

Now our food again has been changing at a very rapid rate. The whole processing of the food that is happening, the whole food that we are using in terms of, you know, insecticide, pesticide or the GM crops is changing our food from what it was before.

And one of the foods which has rapidly change is wheat or gluten. So we are seeing more and more people, you know, being sensitive to gluten. Similarly, there are other foods, you know, which can be sore.

Sometimes it can be dairy, which can be processed food. And these food sensitivities, you know, basically damages our gut and leads to this leaky gut, which is, again, you know, and starting point for Hashimoto's or Graves disease.

Autoimmune Thyroid Disease and Major Triggers

So full sensitivity being number one, where, you know, poor quality of food is causing to having reactions to and triggering of Hashimoto's sees. The second one we're dealing with is nutritional deficiencies.

Now your thyroid needs specific nutrients, specifically minerals like zinc, like selenium, magnesium. It needs vitamins like vitamin D, vitamin, you know, bees.

And unfortunately, our current diet, you know, our current food is low in these vitamins and minerals. Even though people are eating a healthier diet, our soil itself is low in these vitamins and minerals, which are very important for our gland.

So once we don't get those again, that leads to triggering of Hashimoto's. So that's the second trigger that I see very often. The third trigger over here is stress.

Now this is the stress. You know, it can be emotional stress. It can be super stress or it can be hormonal stress. That's the reason I see a lot of females being diagnosed with Hashimoto's sees after they are gone through a pregnancy, because pregnancy again is a big shift in hormones.

So post pregnancy the protective hormones go away and again Hashimoto's gets triggered. Similar thing happens in menopause. Again, big hormonal shifts.

So that's the reason females are a little bit more prone to Hashimoto's because of big hormonal shifts. But the world is more stressful than it was before, so definitely all can experience that on the daily life of our.

So again, that is a big trigger that we are experiencing. The next over here is toxins and I can name at least 100 toxins, you know, which is there in our environment which has been associated with autoimmune diseases.

And unfortunately we are pouring more and more whether it is heavy metals like lead, mercury, we already knew, like, you know, decades ago that there damaging our body.

You know, whether it is a mole toxins which just recently in the last 5 or 7 years ago that we can notice that they are damaging a land or the environmental toxins, whether it's a glycosides from roundup, whether it is, you know, insecticide, pesticide, plastics, all of those things accumulate in our thyroid gland and again lead to triggering of Hashimoto's disease.

So that's a fourth trigger. And the fifth trigger over here is infections. Whether it is parasites in the gut like blastocyst, whether it is bad bacteria in the gut which is the sibu overgrowth of bad bacteria, or overgrowth of Candida in our gut, or are we dealing with Epstein-Barr virus reactivation?

Or recently we are seeing that post-Covid. Also, more and more people are being diagnosed with Hashimoto's. So these again, chronic infections, reactivation of those again can lead to Hashimoto's.

So these are five big triggers which a person can get exposed to and that can lead to Hashimoto's. But more importantly most people have to understand it is never just one trigger.

It's a combination of 2 to 3 triggers coming together, and then your body's immune system gets broken down and that ultimately causes this autoimmune disease function. Yeah.

And that really you know, this is so clearly building the case and highlighting why just throwing thyroid hormone in someone is just not. It's so often it's just not going to move the needle for them.

It explains why so many people have been written prescriptions for thyroid hormones and they just don't feel any better. And as you said, you know, they often just get gaslit by their doctors who aren't doing it to be mean.

It's, you know, it's what they know. They're like, well, dude, I did what I could. This is what I've got, go forth and feel better kind of thing. It's disappointing.

But the beauty of people like you who are out educating people like this is really helping to empower the the patient to say, I'm not crazy. There's more to it than just one thing.

And giving them this actionable, actionable playbook to really address this stuff. And and, you know, you mentioned gut permeability, which is, you know, it's prevalent in society.

And so when we talk about people having a permeable gut and, and really activating their immune system, it could go any which way. And for whatever reason, there's a population of people where it goes after the thyroid, which is.

So it's interesting and maybe for another discussion. But but there's other issues in the gut that can be a factor, I think. And what are your thoughts on the role that an H.

Pylori or candida overgrowth might be playing, or maybe even like broader dysbiosis, like kind of a gut microbiome imbalance, major imbalance going deeper into the gut.

Right. So the H pylori will be more in, in the upper digestive tract. And then the Candida or Candida can be anywhere. But but what are your thoughts on those other players in this area.

Absolutely. So again gut related infections are so common. And again, you know, like anything or everything that, you know, all these triggers, you know, have research behind it.

So it's not that me just kind of making up, you know, like okay well today this is a trigger that your body is going through. So we have associations which the research studies have shown.

Similarly H pylori also we have association that it can trigger Hashimoto's. And again treatment of H. I can actually

help people in lowering the antibodies.

Similar thing you know has happened with parasites in the gut and things also. Now what is association and how does the actually play a role. So again it is multifactorial.

First of all, whenever you get an infection in your body, what it does is that your body is immune system, you know, is trying to fight off with that infection.

And these infections are not acute infections where let's say you get a strep infection and if you don't do anything about it, you're going to land up in the emergency room and everybody will know that you had a strep infection, as in fact not parasites can go undetected for a very, very long time.

So basically, like your body's immune system is so busy in trying to fight them off. And sometimes our body's immune system gets defeated. And that's where, you know, like, you know, this gut permeability happens.

That's the way, you know, the damage which starts happening because it leads to chronic inflammation in your system. And chronic inflammation is basically, again, your body damaging itself.

And that ultimately, you know, like triggers leading to these autoimmune processes, which is happening now. Interestingly, some of these things like Candida and other things, they also play something called molecular mimicry.

What that means is that the genetic makeup or some of the cellular makeup of these organisms are very similar to some of the cellular makeup of thyroid gland.

So when your body's defense system is trying to kill or get rid of these organisms in friendly fire, unfortunately they also damage your thyroid cells.

And just imagine this friendly fire is happening each and every day, 3 or 30 days of the month, 365 days of the year. Ultimately, yes, your thyroid does get damaged and unfortunately you're not seeing any symptoms, right?

Because a lot of people come to see me. My gut is perfectly fine. I'm going to the restroom every day. I'm pooping every day. No problems. I said, okay, let's do advanced analysis.

And sometimes, yes, we do see us over there. Sometimes we see overgrowth of bacteria, sometimes we candida. So that's the problem with these chronic infections.

They don't give overt symptoms in a lot of people. So they never know that is what is going on inside their body. Yeah. So that really was leading into my next question, which is what labs do you consider.

And people, if you're getting impatient here because we haven't even said the word bio regulator or peptide yet, just know we're getting there. We're just we're laying we're laying down the education.

And this is the point I want to make about peptides and bio regulators is they're not your first place to go. So we need to understand the situation. You need to understand the drivers.

We need to understand what's happening. And then we need to understand when to bring these small powerful molecules in. So be patient. We are getting there.

We will be there in just a couple of minutes. But going back to the question you just mentioned assessing gut health. What other than gut health labs or maybe share with us some of the lives like what are the labs that you really consider essential when you're evaluating a patient and you're suspecting thyroid dysfunction or Hashimoto's.

So first of all, going to the basics in terms of what labs everybody should be getting. So again, you know, once a

person goes to the regular doctor, the only lab they get is TS, which is a thyroid hormone.

That is definitely an inadequate way, not a complete way of evaluating your thyroid gland. So along with your TS, you need to check your actual thyroid hormones, which are your free T3 and your free T4, so that you can actually know how much of the thyroid hormone is reaching your cells.

Because in some people, the T4, which is an inactive thyroid hormone, doesn't get converted into the active thyroid hormone, which is the T3. So you need to know what is going on over there.

Plus then you need to get your antibody levels checked. Let's say you're, you know, assuming you have hypothyroidism then two antibodies are TPO antibody which is a thyroid peroxidase antibody.

And the second one is the thyroid globulin antibodies. Again these two antibodies can easily be done with any lab across the nation. And same blood work.

You know when you're drawing you know for TS you can get these done. So these are at least the basic labs at each and every thyroid. Patients should be getting to complete evaluation.

Now after this, if your practitioner is ready to order a reverse T3 lab, that will again be very useful because then you will know that you know whether it is actual problem is a low T3 or the reverse T3, because there are two separate things.

T3 is actual thyroid hormone which is have a positive effect on your body. Unfortunately, your body as something called reverse T3, which is the brake hormone, which is an anti thyroid hormone, which doesn't let your T3 hormone to work on your body.

In some people, T3 levels are perfectly fine, but the reverse T3 skyrocket high. So the problem is not give to more thyroid hormone. The problem is actually lowering or working on this reverse T3 so that the actual thyroid hormone medicine can work better.

So these are the basic labs. Then on top of that to know your root causes, you know, getting an advanced gut analysis like a map or a GIF is very important to know what is going on inside the cut. Do you have leaky gut?

Do you have bad bacteria? Do you have Candida? Do you have pylori going on or do you have any other infections going on? Then after that, looking at your toxins, doing a heavy metal test or a mole toxin test or an environmental toxins test to know the total toxin burden, because what people don't realize is that we only have one detox system.

All the toxins have to go through that one system. So let's say you have a little bit of mercury, a little bit of lead, a little bit of, you know, mycotoxins, a little bit of, you know as well.

Now when you combine all of them that becomes significant. So you need to know your total toxin burden. Then after that, if you suspect that you might have underlying Epstein-Barr virus reactivation, you can do that.

Or now these days you can also do your Covid antibodies to kind of see if they're really very high or not. And then after that, looking at your vitamin and mineral analysis, you know, where is your selenium levels, where is your zinc levels, where is your magnesium levels, you know, where is your vitamin C, vitamin E levels.

So those, you know, can be known about it. So these are the basic things that I will say that people should get. Yeah yeah yeah I was just wondering like what role do you think iodine plays in all this.

Because I haven't heard you mention it yet.

Gut Infections, Lab Testing, and Key Nutrients

And yet iodine you know, is so we understand is so central to thyroid health. So many people now are deficient and

and maybe even as we've moved towards these better salts and steak come away from iodized salt.

What are your thoughts on iodine. And maybe even something like selenium, which is another one of these trace minerals that is just, you know, there's a very sweet spot for selenium.

You don't want to go up, you don't want to go too high or too low. Same with iodine. So the reason I did not mention iodine is this is one of the most controversial things in the thyroid. Yeah.

About the future I know. So there are two camps. One camp loves iodine. They want people to have very, very high doses of iodine because the claim is that, you know, that, you know, rebalances your thyroid.

It is also anti infective. So that kind of clears up all the like, you know, all the infections and everything in there. But on the other hand there are people who say that no no no.

Do not even touch iodine because that is going to flare up Hashimoto's disease. So remove every bit of iodine from your diet or from really? But don't you need iodine for T3 and T4?

Like that's what the three and the four. It's the number of iodine molecules attached to the central molecule. That is exactly correct. So the research is very clear over here is that when you have very high doses of iodine, that is going to cause Hashimoto's sees, when you do not have any iodine, you are going to get Hashimoto's.

So there is a sweet spot, you know, like, you know, you need to hit. Unfortunately, we do not have a perfect blood test to check for iodine levels. So that's the reason, you know, it's not very common to check it.

And there is no way to know your iodine levels. We do have a urine iodine test, which is better than the blood test to kind of give an idea about it. But there is no perfect test.

So this is where I'm right in the middle. I feel that, yes, you know, we need iodine in our diet. So that is again, depending on a person's diet and lifestyle, certain people who are living in the coastal areas, you know, eating seafood, seaweeds or sea vegetables on the daily basis.

Well, they are getting too much iodine, so they don't need to kind of add any other iodine from in their diet. But on the other hand, there are people who are not eating any of the iodine rich food, no CV, no sea vegetables, or like no seafood or things.

Then definitely they need iodine in their diet. Whether it can be, you know, through supplementation, whether it is to iodized sea salt or whether it is to kind of, you know, eating these CV or vegetables and things.

Now this is where salt also comes into picture, because obviously now we have this wide varieties of salt. You know, we have the regular table salt. Then we have the sea salt.

We have the pink Himalayan salt. Then we have Celtic salt. So like you know, people are like confused. What is best for my thyroid which salt is good.

So again it depends on your iodine status. The difference between these salts is the mineral content. The salt is your table salt because it is stripped off of all the minerals.

Literally it only has sodium and chloride and you know, like added iodine. That's it. Okay. Yeah. While the other salt, like Celtic salt or pink Himalayan salt has much more minerals in them, but unfortunately they are low in iodine.

So if you're that person who do not have any iodine in your diet, then maybe sticking with iodized salt is a good choice for you. But if you're that person you know who have either iodine supplementation or iodine in your diet, then definitely going going with Celtic salt or ripping Kamali and salt, which has more minerals, will be better for you.

So this is where the iodine controversial thing, you know, has a answer from my son. Yeah. No. That's great, I think. Yeah, I think I'd rather see people supplement with a tiny bit of iodine versus using table salt because it's, you know, it's it's a pretty it's kind of like the junk food of the salt world kind of thing.

That's exactly what I do. Also, I like recommend people having some supplementation of iodine because again, it is more controlled. We are knowing how much iodine is going in your person's body rather than just kind of guessing in a food.

So yes, you know, like that would be my recommendation to also for people. Okay. So we're going to get to the our key star topic in a minute. But before we go there, there's a lot of confusion.

People have a lot of confusion about what's a normal range versus an optimal range of, of levels. When we're talking about thyroid. And this is when it comes to for T3, I mean, I think we're all going to have a little bit of time in the system.

But where do you see those ranges? Where do you like to see the basic ranges when you're looking at lab work, so that people listening to this can go back to their labs and say, oh, that's interesting. My doctor said this was normal.

Doctor Coupe De is telling me no, not so much. Absolutely. So again TS right. You know, if you look at the numbers, the again, it's a very wide range that we are looking at now typically you know goes from one to like, you know 4 or 5 as a normal TS.

What we believe is that for a person, you know, like suggesting that they might be developing a tighter disorder, then once your TS is going, you know, on the upper normal of twos or threes, then that is definitely telling us that something is going on with your thyroid.

And there is a good point of time to look at your thyroid antibodies as well as T3, T4 to kind of see what's going on. Now once you're already on medications and things, then typically I would like to keep that around two as much as possible because again, that is the optimal range where your thyroid is working in the best case scenario.

Now some practitioners feel that the lower the TS, the better it is. So they will actually increase the dose of medicine so much that the itch is less than one or like undetectable.

Yeah, I feel that's not the right thing to do, because then we are putting those people into the hyper side of things. They might feel good because, you know, you have pumped up so much tighter hormone, which is literally steroid.

So you'd have a lot of energy. You can accomplish things, but on the long term basis, that might not be the best choice for your heart, for your bones and other things.

So you're kind of sticking around. The twos range is the best for the says that I would recommend. And it goes again with reverse T3. As are talking about reverse T3.

Again, everybody will have some of it. So zero is never an answer. You know? Again, there is no ranges for it. But I believe that any reverse T3, which is more than 15 then I think that is significant.

That needs to be looked into. What is causing the reverse T3 to get elevated. So try to keep it less than 15 as much as possible. Now in terms of three T3 and three D4.

Again, the ranges are very variable from lab to lab. But what I will say is that don't try to be in the lower end of those ranges. Try to be in the middle of those ranges of of your free T3 and free T4.

And I think again, your body and your thyroid is going to like that. Yeah. Perfect. Okay. So we've talked a lot about diet and supplementation. Well actually you know what the one one thing we didn't talk about was selenium.

I mean, I like a religion. I eat to Brazil nuts a day. I think they're delicious. I've been told, and I believe that it

provides my body with enough baseline selenium that my bases are covered.

What are your thoughts on selenium? Because that's another one. It's a trace element. It's kind of people don't really think selenium. Absolutely. Again, selenium should be the like, you know, should get the limelight which it deserves, which it doesn't.

Nobody knows about it. And you know, it is a star mineral for your thyroid. And most people are lacking selenium because it is not present in a lot of foods.

You know, as you said, Razzie nuts, you know, is the is the best source of selenium. But how many people are eating Brazil nuts, right? Unless a person is told to be, nobody eats them, right?

That's not the favorite people. So that's the reason we do not get enough selenium. And selenium plays very critical role in hormone production, as well as plays a very critical role in conversion of your T4 to T3, because selenium takes part into certain enzymes, which are part of these differences, and the super oxide mutations enzyme which are present in your thyroid gland and leads to production of thyroid hormone and conversion hormone.

And again, we have at least like 100 different research papers, which clearly shows that people who are deficient in selenium, they have higher chances of Hashimoto's disease.

And as soon as you replace the selenium, actually, the good news is that the thyroid antibodies also start reducing and they start getting better. So that's the reason selenium is is very important mineral that anybody who has Hashimoto's or thyroid disorder, whether it's graves also even in graves you can actually eat selenium.

And that will be useful to lowering those antibodies. And as you said, the biggest or the best source of selenium, if you want to get it through food is Brazil nuts.

Typically you like two Brazil nuts, you know, are enough of to get the selenium in your body. But again, the quality and the quantity and where they are coming from, the selenium levels can vary.

But like on the general basis, if you don't want to take any supplementation, then I think taking Brazil nuts is a good choice. If you know like you are taking supplementation, then again, don't overboard onto it because there is something called selenium toxicity because people think, oh well, you know, like you know something is good, more is even better.

So let me kind of eat like four or 4 or 5 Brazilians. Plus, let me get this side or supplement, you know, which has selenium into it. Well, you know, you're overdoing it because you only need 100 to 200 micrograms of selenium.

Anything more than that over the course of long term basis can cause toxicity to the people. So again, just kind of looking at your complete picture of your diet as well as supplementation and sticking to that.

But yes, selenium is very very important for your thyroid gland. Yeah, I don't know. There was a show or a movie once and it was seared in my mind where the guy ate Brazil nuts like all day or something and got.

So it was almost, it almost mimicked, I think, almost like radioactive exposure or something like it was a very like it. This is very much a sweet spot supplement, folks.

So don't definitely, as Doctor Gupta says, enough is enough. More is not better. Knowing that there is less and more. More will make you sick. So okay, so we're getting to the heart of the issue here.

And so when do you decide when diet and supplementation right is just not enough. And when does a case need more advanced interventions. This is where we're aiming. How do we decide this.

Iodine, Selenium, and Optimal Thyroid Ranges

So I think I mean, what I've realized over the course of these years is that, you know, waiting for a long time to introduce certain advanced things like peptides or bio regulators.

We don't have to wait for them because this Hashimoto's disease is not an easy disease, is a pretty complex disease. So we have to card from all different angles.

So for me, it's like when people are starting with me. Yes. You know, like anybody who's sitting at home, they should start with a diet and basic supplementation.

But when you're working with a provider like, you know, people, when they start working with us, we start building their protocols by involving bio regulators, peptides, supplementation and diets.

So we are hitting hard the body from all different angles. When I say hit hitting hard doesn't mean that you are going to feel worse, actually. Basically just, you know, incorporating each and every way of supporting your body in all different ways or fashion, because every vitamin, every mineral or every peptide you're going to introduce has a different mechanism of action, and they're going to help your body in all different ways, and that is what is needed.

We need all hands on board. So for a person to get better. So for me I don't wait very long time. You know I will just start them, you know initially itself.

But yes, you know, as we discussed before, also when you are introducing bio regulators and peptides, you need to work with a practitioner who is well versed with those so that you don't harm your body.

Instead, actually, there will be useful for you. Yeah. Fantastic. So I'm you know, when you look at peptides, are you looking at them as symptom tools, root cause tools or maybe recovery accelerators layered on to the work that you're doing, or maybe all of the above?

I will say all of the above. Yeah, yeah, yeah, no for sure. The good part is that we have so many different peptides. And the worst part is that unfortunately, Hashimoto's people have so many different symptoms and so much going on in the in terms of root causes.

So again, different people will need different help. Some people just need symptom relief. So obviously we use certain peptides for that. But a lot of people almost everybody will need that root cause relief.

So definitely peptides you know to work on those root causes are a very cornerstone over here. Yeah. So we're going to talk about that now. So we have our first contestant BPC 157.

Let's talk about the role that it's playing for you with your thyroid patients I think you know we talked earlier about the gut, but we also talk about oh immunity.

Do you want to talk a little bit about where BPC kind of fits fits in there for your patients. So BPC is kind of one of those base peptides is what I call it that, you know, almost everybody can benefit from it.

And the good part is that, you know, it doesn't have much downside. It doesn't have too many side effects very well tolerated from people. So again, as we know, BPC is basically a peptide, you know, which is generated in our gut.

And you know, we have seen that it has plays multiple roles. You know, it helps, you know, in healing your gut, specifically people who have intestinal permeability or leaky gut issues.

BPC, you know, can be helpful for healing that. And then plus obviously in general healing your body, whether it is your ligaments, your muscles and other things.

BBC plays a significant role. So in order Hashimoto's patients, definitely the thing that starts the whole process of leaky gut and gut permeability, you know, BPC directly addresses that and works, you know, on healing the gut.

So that is one kind of base benefit from it. A lot of tired patients will have chronic pain issues. They have too much inflammation going on in their system.

And again, by having the healing power of regenerating, you know, the ligament and muscles, it can reduce the pain. And plus, you know, it also works on some of the inflammation pathways and reduces inflammation in your body in general.

So that's an easy peasy, you know, works in multiple ways of helping the Hashimoto's clients. And that is one of those ways peptide that, you know, I can like start adding from day one so we can start getting their gut and other other things.

Yeah. Fantastic. Okay. I have another question I'm going to ask you. I want to move through the because you have four peptides that you really focus on in your practice.

The next one that you talk about a lot and makes sense given our conversation leading up to here is thymus and Alpha one. And I you know, my understanding is you really use it particularly with people who might be dealing with an Epstein-Barr virus reactivation, obviously immune dysregulation or even if they have some current infections going on.

Do you want to talk a little bit about to one and how it plays a role here? So time was an alpha one peptide as we all know is basically working with your thymus gland.

Now thymus gland is the one which helps us in making our whole immune system when we are young. You know, with this time, gland trains our immune system so that it can fight off with potential infections as we age.

Now what happens again is that as we age, sometimes, you know, our body's immune system, you know, sometimes goes into the other direction. So thymus and alpha one can retrain the immune system so that it fights the external infections and not your own body.

So that's the reason in Hashimoto's it is very important over there. And research studies, you know, which supports the thymus. Alpha one has been useful in several chronic infections.

Whether it is hepatitis viruses you know, it has been used. It has been used in other infections too. So that's the reason I love thymus one specifically, if I'm suspecting any kind of infections, whether it's Epstein-Barr virus, whether it's Covid virus or even kind of, you know, any parasites or immune dysregulation where people just immunity is just weak in general, they will get common cold.

Very often they will get other infections very often. Time in alphabet is very great. Plus what it does is that it retains your immune system in reducing inflammation so that we can see beautifully that inflammation in the thyroid gland reduces.

And those antibodies also start coming down. So very important peptide that you know is plays a very crucial role in Hashimoto's patients. Fabulous. Now there's another thymus peptide that you use as well.

I was interested to see this when I was reading up on you. And that's thymus in beta for when do you use when do you bring that. Because I think it plugs a couple of other holes.

It's also, you know, kind of BPC 157 BF but thymus in beta for you. You seem to layer that into your protocols as well with patients. That is correct.

So again you know like we start off with BPC thymus and Alpha one in certain people. And then later on sometimes you bring in TB for the reason being TB for again, you know, like takes the healing process to the next level.

So people who already had damage to their kind of nervous system, you know, had like traumatic brain injuries or people, you know, have had injuries to their spine or ligament or other things.

Thymus beta for is very great. And again, a lot of tired patients will have inflammation in their system. They will have chronic pain or they might have nervous system dysregulation in terms of brain issues like brain fog and things.

I think for again, first of all, not only improves in reducing inflammation in this system, but also takes that healing of the body, which is very important because the body has taken a lot of beating from those antibodies for a long time.

So thymus and beta four helps in healing the body from all the damage it has been gone through, and again helps people in improving their inflammation levels as well as healing process also.

Yeah fabulous.

When to Use Peptides in Hashimoto's Care

Okay, last one and this is a tricky one because this is this I consider this peptide to be a little bit like our conversation on selenium and iodine where there's a sweet spot for it.

And if you go too far over especially too much of it, it can really backfire on people. So and this is HL3 seven. This is the small molecule. This is the peptide that really it's almost like the antibiotic of the peptide world.

You know it's it's the heavy hitter when we're talking about mold parasites and even Lyme. But you know what's the clinical upside you've seen clinically.

And then where do you know that you have to really tread carefully with this one. So lucky seven is not the peptide that I use in each and every client of mine.

Because as you said, you know, yes, it's only certain indications will use. So people, you know, again who are very heavily infested with mold, you know, that's one thing. Use it.

The second one is that, again, people have a lot of chronic infections. You know, like we do the testing there Epstein-Barr versus positive there. Covid is positive.

They are positive for Lyme but BC or Bartonella. Now obviously to make a plan for them to address all of these infections becomes very, very big challenging because those people have taken IV antibiotics for a couple of years, you know, because the lime doctors love it and doing these things.

But again, that completely shorts out the gut immune system and the gut microbiome and things. So this is where L 37 is very useful that, you know, it has shown a lot of antimicrobial properties, you know, against viruses, against bacterias, against even Candida.

And similarly with mold. Also, you know, it is very useful at 37 because again, it up regulates your immune system. Now with little 37. Yes, we have seen some people which are very sensitive.

It can hyper regulate a person's immune system also specifically if you're using it very very high doses. So again we try to use the smallest dose and you know go very slow with that and see the responsible person.

And then increasing it and again using it for a short duration of time, maybe for like 3 to 4 weeks or so, and then kind of giving their body a break and seeing how that works.

And then maybe if you need another round of it, then we use it later on, but only, as I said, for people who have chronic infections, multiple of those or they are having very heavily infested with mold are the only two patients that will typically use L3 seven.

Otherwise, you know, like we don't use it, you know, we stick better or we do the other peptides more often than this one. Yeah. Yeah. It's it's a strategic tool I think. All right.

So as we close up on the peptide section, what what are the mistakes that you see from patients or practitioners using peptides without really understanding what they're dealing with here.

Like really understanding the auto immune context. Like or maybe it's the terrain like where do you see people going astray? And I think also mostly probably with patients who are now they have so much information at their fingertips, they're like, okay, I can do this, I'm going to do this on my own, which is great.

But where do you see the pitfalls on that? So first of all, as we discussed before, also it is about the quality of the peptides. You know, like you know, because you know, like these are so easily available, people can go on internet and start buying these peptides.

But again, you know, like because they're not regulated. So that means you do not know what you're injecting in your body. Right. Because these are lab made and there is no certifications with them.

So these updates often are first of all useless because they do not, you know, qualify as, you know, a particular supplementation. Second of all, sometimes they can be having viruses of their own.

They can be not produced properly. So they can be actually having different germs. So don't buy off internet without doing the research of a certain company.

And same with practitioners is that don't kind of use companies which you do not do not follow the good quality standards. My standards are that okay.

Well that particular company who is making that peptide or a bio regulator should be located in United States. So at least they're following certain norms.

And then, you know, because a lot of peptides car coming from outside the country and we just don't know how they're being produced. So first of all quality quality very important over there.

The second of all is that, you know, again there is stacking is very popular in peptide world. You know, people will say, okay, well, you know, why don't you combine this, this, this, you know, like 4 or 5 peptides together.

Well, no, you know, like you, unless you are sure what you're exactly doing, stacking is not the best option. Yes. Couple of peptides. Like sometimes you combine BPC with CFPB.

BPC-157, Thymosin Peptides, and L-37

Okay. That makes sense because they're both working in the gut. They are working on different mechanisms. So that is fine to do. But sometimes people are using CFPB and BPC and then TB 500 and TB alpha one.

And then you know add you know like an alpha one or sometimes other things. I think that's too much. So again same with practitioners as well as the patients is that start with 1 or 2 peptides so that which are one of the safest ones and then slowly build it up if you want to.

I my rule is that, you know, I don't stack like 4 or 5 peptides. It's like, you know, couple of reptiles at the time and then use them in a sequential manner because they're doing certain things in your body.

And the the interesting thing about peptides is that, yes, we can define their major function, but what we realize is that one peptide is just not doing that major function.

There are 100 other minor functions in your body. It is affecting to. And you know, there is no way for us to know the complete extent of what these websites are doing in our body.

So that's the reason again, kind of, you know, not stacking them is very important. The third thing is that again, sticking with the required doses again, more is not good in this situation.

Oh well, you know, 500 you know BPC is great. Let me just kind of take 2000, you know, a day and see how that works. Well, no, you know, again you know, making sure that you are taking the right dosages in the right way is very, very important so that you are not overdoing on them.

So I think these are the common mistakes in common kind of cautions that I will tell people working with the right provider who knows exactly what he is doing specifically, if you are using it for particular disease like Hashimoto's or any other autoimmune or any other diseases, if you're just doing it for general health, then yes, you.

There are certain set of safer peptides. You can do it, but when you're doing for a disease, you need to know what you're doing. Yeah. And I would say with the immune peptides it's particularly tricky.

Like you need to understand what your immune system is doing, how the moon peptide works so that you don't risk exacerbating a problem. You know, we we automatically assume, oh, thymus and Alpha one's going to make everything better.

But sometimes it can really ramp up the innate immune system. And that's not exactly what you need right now. So I think it's you know, these are these are the finer points that these are the clinical pearls that as a physician, you've collected over the years clinically and through the research, that really helps you to know how and when to use the peptides properly.

So moving over to the bio regulators, because we're going to come up on time very soon, I'm not very good at staying under an hour, doctor. I'm sorry.

So very quickly, like how do you distinguish peptide therapy from bio regulators both conceptually and clinically. Like how do you see fitting differently into this picture.

So you know, like basically kind of knowing people about what is a bio regulator and what is a peptide. So peptides you know, are again collection of amino acids, shorter collection of amino acid than proteins, which is around 20 to 30 amino acids.

Bio regulators are even shorter collection of amino acids, maybe five, three or even like less than ten or something. So that's the difference. So bio regulators are more precise way of working on a particular kind of, you know, organ or a particular disease.

So that way, you know, like we are using it in a more precise manner. So that's a good part about bio regulators. Well, peptides, you know, as we say that, you know, we have more research on them.

But you know like they are longer changed. So they are working on multiple pathways. The good part is that, you know, sometimes I bring bio regulators because now we have thyroid bio regulator which is very specific for gland.

So as I deal more with Hashimoto's and thyroid patients now I can be more specific, you know, and there is good amount of things I've seen that improves antibodies and supports a tired functioning.

Similarly. You know, we have, you know, bio regulators, which supports the kidney function, which a lot of times we use because people will have high amount of toxins so that we can work on the kidneys that way.

Sometimes we have bio regulators, which works on the pituitary gland and things. Again, that can be useful specifically if multiple hormones are affected in that particular person.

So we can see that pan hypo pituitary is happening or there is a chance of that. So again supporting the pituitary gland to work on those or pineal gland in that way. Also working on it.

So that's why I like about these bio regulators is that, you know, I can use them, you know, very precisely for, you know, for a particular patient or a client, you know, when I see there is a need to support that specific organ over there.

So that's the way I differentiate with that. Almost all of my patients will use a thyroid bio regulator because obviously like, you know, as they have Hashimoto's and they have hypothyroidism.

First of all, we see good improvement in their thyroid antibodies. So that is good because it reduces inflammation, supports the thyroid gland functioning.

Second of all, a lot of those patients we see their thyroid hormone levels also improving.

Peptide Pitfalls and Bio Regulators for Thyroid Support

Their improved at E3, T4 hormone levels improve. And the medicine that they were using is working better for their body. So that's the reason the thyroid bio regulator is one of the most favorite ones that you know, in the recent I will say one year is I'm using more and more in my clients.

Yeah. Quick question. How have how have peptides and bio regulators changed your practice because you didn't you know, you've been in practice a long time.

They weren't always as available as they are now. What would you say has been the biggest impact of these small molecules on your clinical practice? I will say that, you know, before I had tools, you know, tools of diet, of life style tools or certain supplements, and we see great results with those.

And adding these peptides and bio regulators, we are seeing better results. You know, I will not say that, okay. Ties in the bio regulators have completely transformed Hashimoto's clients and we don't have to do anything else.

They alone can do it. Not really. But this is one more tool. When I add to my people again we see much more better results, much more better results there through antibodies, which will take sometimes one year to come down.

Now we can shorten them out. And even in 4 to 6 months now we are able to reduce the antibodies and sometimes even back to normal in 4 to 6 months when we use the peptides in bio regulators.

So that means the healing process is accelerated. So first of all, we better improvements in numbers easily. And second of all, symptom wise also that people see much better improvement in their fatigue, their energy, their brain fog, even moving their weight around.

You're seeing much quicker results as compared to before. So I think that has been the biggest change that I've seen in my in my clients. Fantastic. All right.

A few little rapid fire short little questions. Short little answers. Before we go, what is one thyroid lab marker that deserves more attention, in your opinion?

Reverse. Most overlooked reverse T3, one root trigger that is still underappreciated. I'll say toxins. More toxins specifically. Yeah. What's the one peptide that surprised you the most clinically when you started using it?

I would say the combination of BPC and CFPB. I was not using CFPB before, so that combination actually works really much better. Beautiful. One mistake patients make when trying to heal Hashimoto's on their own going on extreme diets.

People are going on very, very extreme diets, low calorie diet just to lose weight or limiting or eliminating almost every categories of food. And that extreme diets, you know, backfires most of the time in the long term basis.

Now, what is one area of thyroid medicine that you think will look very different in five years? Well, I don't think not much is going to change. I hope it does.

But I still feel the endocrinologist societies are not still looking much. But one change actually, I feel, is that at least

they are recognizing the role of T3 medicine.

So more and more endocrinologists are now prescribing or adding T3 medicine along with T4. So I think that is a good addition, and I think that is going to be more mainstream practice as we go along.

And then in the next five years, I just hope, you know, like I don't think that has happened, but I hope that they start looking at the immune dysregulation of Hashimoto's and try to find answers for it.

So that's my hope that, you know, they will start looking into that beautiful doctor Gupta, this has been fantastic conversation. As always. Thank you so much for your generous generosity of time and information.

Please let people know where they can find you and where they can find your book. Absolutely no. First of all, thank you so much for having me over here.

You know, it's a great pleasure. What work you're doing is amazing. So I really appreciate everything, you know, that you are sharing and doing for people.

So thank you so much. In terms of people where they can find me. So, you know, I share information in all different ways. If you are a person who want to watch, then I have a YouTube channel which is called Gupta, M. D..

We put out regular videos about what you can do today to improve things. Then I have a very active blog on my website. Again, the name is AnshulGuptamd.com which again research based information is what I shared over there.

And a book is reversing Hashimoto's. That's the name. And you can find it on Amazon or any other like online book outlet that you want to buy it. You can buy it from there.

Beautiful. Thank you so much. Have a beautiful day. Thanks everybody for joining us. And we're off to the races. Thank you.