Galectin-3: The Hidden Trigger Behind Inflammation, Autoimmunity, and Neurodegeneration Transcript

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Introduction to Dr. Elias and Galectin-3

Welcome to another episode of the MZ and Auto Immune summit. I'm Doctor Terry was your host, and my next guest guest is Doctor Isaac Elias. Now he is a pioneer in the integrative, holistic approach for managing cancer, and autoimmune diseases.

He has, published a wonderful book, the Survival Paradox, in which he analyzes the impact of galectin three on, our health, on the risk of autoimmunity, of cognitive decline and of cancer.

He has done, really marvelous work. He has multiple patents in how we can better address, galectin three. And we're going to have a really, lovely conversation.

Okay, doctor. Eli's, my good friend Isaac. I'm so glad that we have another conversation. And, the listeners, I want you to know that Isaac and I have known each other for several years.

I have a great deal of respect for his work. And I thought I could start with galectin three, which is a very important molecule I did not appreciate until I met you.

And then I learned a whole lot more that galectin three is a very important molecule. Yeah, it's a it's a good place to start. And galectin three is really a biochemical representation theory of a much bigger picture.

And maybe to to pull back before I started. I'm so happy and grateful to be with you again, you know? And, I love what you're doing. And your own personal journey and what you do for others.

So thank you. And, going back to galectin three. Galectin three is a biochemical reflection of something that coined is the survival paradox. So I think to really understand how fundamental is galectin three to our health and what addressing it is going to be, is and is going to be helpful in so many conditions from chronic condition that degenerative condition to acute conditions.

We really have to look at the survival part of this survival response because we are all, without exception, everybody listening or watching you or me.

We are all driven by a survival response. Survival response is basically we want to survive.

Survival Paradox and the Stress Response

That's innate in us. It's energy in our body, and it's in this will drive us. And because it's so innate in us, it is also automated. And the paradox is that what is keeping us alive is also what gets us sick and gets us to have autoimmunity and chronic disease and degenerative disease, and makes cancer grow faster and kills us in sepsis in the most acute condition.

So basically, if this is innate, it's automated, then it is indeed automated through the autonomic nervous system with a sympathetic response. You know, we react when we get stressed, our task goes up, our breathing becomes shallow, right?

And we either have fight, we go into fighting mode, or we going to fear. We freeze, or we go into a flight and we hide and run away. And this later on will translate into an inflammatory response in fighting response.

If I robotic response as a hiding response or fearful response in just boxing things, hiding things, which of course

will reduce the communication and slow in the body, and a lot of new and degenerative diseases which the Alzheimer reflection of lack of communication.

So the sympathetic nervous system, you know, we can meditate, we can listen to music, we can take a walk, we can exercise, and it shifts. But if we live chronically in sympathetic stress, then we start being in a sympathetic mode.

And we can't really balance. We're always in this PTSD mode and all of us are in PTSD. You need to have a big trauma to be in PTSD. Anything in the body?

Remember that hold in doesn't let go. Create a certain scar, a certain memory. So then comes a biochemical system, and we adjust survival alarm in protein.

And one of the key ones, the one I've been working on, Isaac. Alarming protein. That was a really interesting concept. Can you take just a moment to explain that and then we'll go on.

But basically it's a protein that sounds alarm. Oh my god. Survival danger. Let's respond. So galectin three is a very early alarm system. And it sounds the alarm everywhere.

And then it becomes a bus. The drive different ligands, different molecules to different parts of the body. It also activates many processes that end up causing immune regulation, inflammatory dysregulation and the ensuing damage to the tissue into the person.

So it affects every tissue. And so where where do we have to survive? So for example, the the highest level of cancer receptors are in the lungs. Why.

Because the lungs is in one organ. We are most connected with the outside world. We breathe. We inhale and exhale all the time from the lungs. Right. We gotta watch if it's okay, you know, then the gut says galectin three is too high or it's activated in the gut.

Then it affects our gut lining and then, you know, you've got dysbiosis, you've got leaky gut that allows you, if you're coming in and somebody who's not supposed to get into the body is getting into the body, Wiman starting with the gut because some of the most aggressive diseases, the most aggressive is sepsis, which is the body's response to a to an infection to a trigger.

It's not a properly it's only sepsis is only deadly for a certain bacteria. It's the response. So what happen when this happens. The bacteria secrete a substance called lipopolysaccharide.

But it's actually most of the LPs comes from the gut because of leaky gut during sepsis.

Galectin-3, Sepsis, and Immune Activation

Now why am I telling this story with this is about never degenerative and multiple sclerosis because a leaky gut is Mira is in the blood brain barrier, which is a leaky gut of the brain.

Same process. Dairy. Okay, yes. Then what happens? So in sepsis, it kills. Yeah. That's why my work my age grants the X three. Therapeutic is focused on removing galectin three.

And no indication is sepsis. Now what's interesting is that the galectin three will activate very early immune molecules that are very big in multiple sclerosis.

Toll like receptor four is the classical one. And once toll tell you know, tell how full it, is activated when it sees other activating molecules like I call them.

The AMP doesn't matter. Like lipopolysaccharide. It will start a chain of inflammatory response. But is galectin three

that is affecting it. And this immune response will cause demilitarization and will damage the myelin of the notions and will drive multiple sclerosis to be more inflamed.

So you got galectin three, the super early molecule. The triggers an early molecules that binds to other ligands that start the auxiliary generation. And what do we do?

Even in medicine we look for interleukin six. We look for severe acute protein. That's like stopping a waterfall and massive the Niagara Falls with a bucket.

Okay. You got to shut it at the top. And that's the beauty and the amazement of this woman who I'm so excited about it because we know it's more it was acting does it?

Because when we're working on sepsis, we showed we did studies were published to two major journals of critical care. And we took an animal model of sepsis that is gut related.

Okay. It's the it's we're making it damaging the gut. So liver polysaccharide gets peeled into into the abdomen and the rats develop sepsis. We'll give you gave them modified.

It was packed in for a week before they want. They don't die. They don't get kidney injury much less death okay. So why is this interesting? Because it really tells us a story of the blood brain barrier.

Because what happens? The macrophage get activated, the microglia gets activated. So galectin three activates microglia damages a blood brain barrier.

From there on it's all down here okay. So hang on. I'm going to, help the listener understand. So, my good friend Isaac just told us that the leaky gut is mirrored by a leaky brain.

And if we have that leaky gut, we're more likely to have activation of that alarm signal. Galectin three, in the gut and in the brain, if the right. That's one situation.

But unrelated galectin three, if it's too much of it, will still do it in the brain. I'm trying to put in two in the gut. You know, everybody talks about the gut brain connection.

I'm giving a little bit of a deeper understanding why, you know? Okay, but if we start getting the alarm signals in the brain, the microglia become more reactive.

That increase reactivity, calls in more immune cells, and that ends up attacking the myelin. Probably also attacking synapses. The connection between brain cells and attacking Parkinson's, Alzheimer, multiple sclerosis, all of it. Yes.

So our brain is being damaged, in whether it's going to show up as Ms. or Parkinson's or mild cognitive decline and, probably worsening anxiety and depression, mental health, likewise, probably all have and correct me if I'm wrong, Isaac, this excessive, alarm signaling going on.

Right, right. All of them. And it's really depends on the individual where it goes. And it's quite a little bit. So here is the interesting thing is that it's really it's almost, almost a little, a little bit of like, of, like mind blowing.

Is it when we look at make microglia, microglia. It is it's a state of hum homeostasis does not express galectin three. Isn't this amazing? It's like the micro googly eyes. Relax.

It's on the page is like the picture behind me. Well, it was when I meditate every night. So, you know, they're relaxed. No need for survival response.

They are not activated. It's mind blowing, you know. Right then they get galectin three coming in from the blood brain barrier, or they feel they are in stress.

Brain Inflammation and Neurodegenerative Disease

They release galectin three because macrophage microglia can release galectin three and whoops, everything is on fire. It's really it's remarkable. So our microglia are supposed to be, inspecting the environment to be sure that it's safe, that, my brain doesn't have any infection, any, signal of damage.

And as long as that's true, Mac glia are calm. But once they detect either damage, those are those damage associated molecular, proteins, or infections.

Those are the pathogen associated molecular proteins that that's when the galectin three gets released. Right. But the Galaxy three will actually activate these molecules as well.

The galaxy before these molecules. It's so early. So it works both ways. So, if we do this to help clear or we or reduce that, galectin three, that alarm, that alarming that's going on.

Yeah. So, you know, the simplest thing from a nutritional point of view is motivated, respecting, you know, and again, this is something that I developed over decades.

No, no, I have focused on therapeutic infrared. This removal of galectin three but close to 100 papers, I think over 90 papers and quite a few of them are neuroinflammation.

And what would happen when you take motivated respect, especially at full doses of 15g a day? You are down regulating and blocking and attenuating the negative effects of electricity.

And when you look at the publication to galectin three, is highly, highly researched. It's like that. It's like the new kid on the block now it's kind of smiling about it because that old, old man for me, but some of my initial discoveries from, you know, 20 years ago are now like, you know, being and I got the patent on galectin three blocking with MCP, attenuating fibrosis and inflammation.

I got it many years ago, you know, almost 20 years ago now it's the focus of research. I like 15,000 papers on galectin three, but even on MCP with these papers, you see help with kidney disease, with sepsis, with acute kidney injury, with cancer.

Of course, our papers, multicenter trials on prostate cancer and on never degeneration, inflammation, cardiovascular. How can it be everything well, it's a universal mechanism.

Survival drives us. If we look deeper from a spiritual point of view. What is survival? Survival is holding to something that we are supposed to live, because that's the definition of survival.

Something comes to an end and we don't accept it, so we grasp it. We either push it away, we put boundaries. This will cause isolation. Cyprus is a great place for mycotoxins to hide behind.

It's like the meadows to hide and for trauma. This live drama multiple multigenerational trauma or we want it. You know we want to. We want more of it. More of it.

You know, the craving for it. I don't want it to go away. And this, this tension, this inflammation. So boys are an expression of this. And that's why the mind has so much power when it comes to newer degenerative disease.

It's remarkable because going to something much more common now unfortunately the post Covid the long haul Covid vaccine injury I don't care. You call it. For me, it's the same package.

I don't go to one camp or another. Covid itself. It was my experience and people get vaccine and get injuries. We see they create an immune dysregulation and so many of the patients, it's neuroinflammation.

I know for me, I know what it is. So I don't freak out, you know, and then when I meditate, when I relax it goes

away. And I've seen in my in my open heart medicine retreat that I do with you in a way people with Parkinson's, people with neurological diseases getting better in a few days.

It's like mind blowing. How is it not always? Of course. How? Because we are putting the nervous system our. So you start with the heart. The heart likes to flow.

The heart always flows. The, the heart never stops and say, oh my God, what's going on? It's a brain stops, right? Do we do this? Do we do that? When we connect with our heart, we create a quality of acceptance and of giving.

That's how the heart function takes. I don't want to go into this too much not to do this. Do it. So the same thing we want to mimic in the brain when it moves the brain to a safe environment.

So the blood brain here, you know, the traffic is coming into the blood brain barrier slowly. The checkpoint can do the work much better. The microglia feel safe.

Yeah. They clean here and they go have stuff. They go clean here. They are not in this place. You got to. So people listening try to personalize themselves, try to create a relationship with it and try to like share this sense of open heart with them and with others.

Of course we all need the same boat. And then what happens? Oh my gosh, things get better. So then modify it to speak in the picture. So is it a gift of nature?

Modified Citrus Pectin: What It Is and How to Take It

As David Williams used to say. It's like here we would say it's a God's gift. You know, but it's a gift from nature that addresses this very basic drive that is really what causes pain and suffering and divisiveness and lack of communication and lack of communication is a hallmark of neurodegenerative disease.

What is a miss? There's a myelin problem. So it doesn't flow as well anymore right. There is lack of communication. What is Alzheimer Alzheimer. Is it contracting of the size of the interconnections of all of the synapses right from like trillions?

It goes down. When do we go down and don't connect? When we don't feel safe. That's why galectin three can be 10 to 20 times higher in the in the Alzheimer plaque compared to a normal tissue.

It's a biochemical substance. Expression of the survival paradox. That's why I took the time to finally write a book called The Survival. You know? So MCP Pick the Soul also is a simple no brainer that may have minimal health or may have amazing help.

You know, I mean, you know, you know, from your experience. But sure enough, you know, when we gave picked also to prostate cancer patients. The side effect is that their memory gets better and the odds right is gets better and they feel better.

You know, they have less inflammation. This is a side effect of a treatment that addresses an issue from the root. But the journey in M. S. is take a look at everything in.

Don't put aside the remarkable progress that medicine made with addressing the autoimmunity. You know these drugs. So let let's again, tell our audience what packed solids, the modified citrus pectin, where it comes from.

And, and, what is this? Is this a synthetic molecule that you manufactured and a so, Victor. So. And what it was, it was taken is a modification of the pectin of the white in the white part of the citrus fruit and in other fruits, the in the inside of the peel and the white let you know the white lines in the orange or, or lemon or, you know, or grapefruit.

And by the way, there's no problem with use of statins. It doesn't interact with with cytochrome P450. When you you extract pectin out of it, and every pectin that you extract is modified per definition because you are modifying

the pill.

The modified citrus picking picked up up specifically a low molecular weight pectin with this specific structure. And through this it gets absorbed so as the gut which we demonstrated and then it has its biological effects.

And for me, I've said it many for many years, and I feel comfortable saying, you know, when I'm not involved commercially, and I sold this company three years ago, it's the most important supplement one could take. Why?

Because it addresses the basic drives. It causes acute. It makes worse, not cause acute kidney injury. Chronic kidney disease. Neurodegenerative disease kills in sepsis.

And makes immunotherapy in cancer not work well. Drives Nash know which is an epidemic. And so so, our listeners may wonder what is Nash. This is nonalcoholic starter egg.

Hepatic disease. It's a fatty liver. No. What? Yeah, yeah, yeah, yeah, the liver. It's a it's a it's the clinical manifestation of fatty liver that eventually ends up with hardening, with cirrhosis of the of the liver.

And there are some local drugs that are trying to be developed specifically for, for these conditions or not simply to take the practice off. You know, we're simply infinitely much cheaper and available right now.

And so if we're going to take, practice all of the modified citrus pectin, you know, I see that there are some capsules, a variety of, modified citrus, pectoral Taxol or modified citrus tablets out there.

And then, yours is a little different. And, you have capsules. You have powder. How would our listeners, investigate what to use here and why? It really depends on preference.

The, you can get it in powder when it is non flavored. So it's just like the cleanest way to get it. You can get it flavored and lime flavor. When I was in the company now I think they developed a berry flavor that they really like.

It looks good, but you can take it in capsules. Do not take the chewables if you have neurodegenerative diseases, because you need a high dose and you need too many chewable that it's harder to digest.

And so it's either like I take capsules because I travel now, I can throw 10 to 12 capsules in one shot. It's not a problem for me. Not everybody likes it or you.

Some people mix the regular powder with a flavored powder so the flavor is not too strong. So people can try their their, their priority and it's worthwhile try because this is going to be your friend.

You're going to use it. Yeah. Basis. Now I use this and I, mixed I take the powder, and, you know, for a while I did a scoop and a half twice a day, and I discovered I was missing my second dose too many times.

So then I just went to, you know, three scoops all at once. And, you know, I, And then I take it. So, our listeners might be wondering, do you take it with food?

Do you take it without food because you have some supplements you take intentionally with food and others you take intentionally on an empty stomach, so it's preferable an empty stomach, but you don't need a lot of time.

So even 1015, 20 minutes before food or one hour after I take it on in the morning on an empty stomach, and it's easy, but it's better a little bit before food.

I mean, we found out that there is not really. It's not as critical as we thought in 1985, when I kind of created the initial instructions for the modified seed respecting and, yeah.

And you can take it with other supplement. It's not a problem because it gets absorbed. So you can you can. So you could take it, mixed up in your water and you can take it with your other supplements or supplements, I take it

with other supplements, the other supplements.

Longevity, Centenarians, and Sepsis Research

And one thing that I, I mean, if you're going to take three scoops together because, electrolytes there is potassium and sodium, you may get soft stools.

So if you take three scoops you want to drink it over a certain period of time. You're doing all this with scoops dairy at once. Well, you know, I have it in my mug and I'll sip it.

You know, I don't just chug it. I'll, drink it over an hour or so. Yeah, okay. That's fine as long and. Yeah. Yeah, it's it's, there's, I mean, it's preferable to do to this and go do this.

So you keep the levels in the blood and then make more even. But if it's more important to take the full dose into me because I also missed the I dose.

So I take about 1.5 to 2.5 cups capsules whatever. My hand. Yeah, I mean the yeah. You know and you know, I did it twice a day, for a long time that I realize, you know, I'm missing my second dose more often than I'm taking it.

And like, you know what? It's just simpler. If I make my. Yeah, it's people. It's too much of them. And you take two scoops in the morning and you take ones at night, so, you know, you get two scoops, ten gram.

Okay. So, so, that sounds good. It's also probably helpful to know that, all I need to do this 10 to 15 minutes before my evening meal. So, that got to know.

And somebody who developed it. You. If you're going to take some modifications, please take Victor. So all the research was done on pictures. So there's, 30 years of research.

You know, as I said, I'm now focusing on therapeutic for this. And and we get dramatic results in the treatment of sepsis. That's an FDA approval medical device.

You know it and it hard work. But. I mean, they they picked us a legacy that's part of my life. You know, no matter what topic I don't care about, they can't talk about meditation.

Any of the questions I picked up or it's a remarkable product that I learned to respect, and it has helped hundreds of thousands of people. I feel very fortunate to be involved in making this available and developing and substantiating it, and it's a really good companion for neurodegenerative diseases.

And it's really and some of my colleagues, this is a it's like the best kept secret in town. You know, I didn't put my energy into marketing it or hyping it.

I put my energy into researching it. Only in 2022 or 23, I started like more talking about it because this is, you know, so yeah, it's it's a it should really be part of a daily program of, of everyone not only miss cardiovascular disease, you know, kidney issues, liver issues, inflammatory issues.

It's I mean, and it's probably, a really helpful part of a longevity program if we're, you know, and now that I'm, you may not know this, Isaac, I'm a grandmother now.

So I've, I've a grandson who will be a year, in a few weeks. And so now I'm thinking, I want to be around, watch him grow up, and to play sports and to, hopefully ask his grandmother about dating advice.

And, you know, to see what kind of young man, he grows up to. So longevity, you know, talked about wanting to live and thrive to 120 to, you know, keep doing my research because I'm having so much fun with that.

But now I want to do that, to watch my grandson grow up. Which is really nice, actually. We use this in in Chinese

medicine. Yes. I mean, I want to longevity again, want to share more with others and to so I can I can see my grandson and my grandchildren because my daughters are too busy with other residency or other stuff.

So hopefully that will happen. Congratulations is very exciting. I'm happy. And yeah, but let me just studies and longevity centenarians have a lower level of galectin three than people in the 70s and 80s probably studied.

And remember, the 1780s includes the group of people who will be sanatorium. So people who made it to be centenarians have lower blood level collectively.

And, you know, it's remarkable. For example, we the same lipopolysaccharide I described that we did it. We're doing our big proof of concept with the exclusively therapeutic offerings.

This is, in an LPs induced very aggressive cyst sepsis model in pigs within 70 to 80% mortality in 24 hours. And when we remove the galectin three. So the animal goes into septic shock in 45 minutes.

But when we remove the collecting and not even a lot of it, we shut down completely the sepsis process. That's the power of the survivor response. Okay.

Now when we look at the multi-omics, it's a protein expression. It's a genetic expression in this very sick, rapidly deteriorating animals, we see dramatic changes in the cellular function and the leakage from capillary.

Open Heart Medicine and the Power of Acceptance

It of course drive Ards. Acute respiratory distress syndrome would kill people in Covid but also drive neurodegenerative diseases. And we are even seeing activation of Alzheimer genes by the aggressive LPs induced.

And we see a shutdown of it in attenuation with one single afferent. This is one single passage of filtering in the blood in the pigs and taking out the latency.

So people really have to understand we're talking about acute condition that my focus ICU, you know, number one killer 20% of our data from sepsis. And it's killing that medical system.

And we see it in neurodegenerative disease, and we see it in longevity, because the more relaxed we are, the happier our bodies, the more it communicates which it's sitting the body and with other, with an open heart, the less contracted we are, the longer we're going to live and the better life for me.

So, you know, let's talk about the open heart, medicine that you do, if that would be okay. And, you know, one of the things that you, you discussed was how the heart is willing to accept the dirty blood.

Right? And I think that's a, super interesting, process for us to talk about and to visualize what that does for our health. Yeah. It's a it's a profound, it's part of an intent, actually.

This inside I got right here on this page many years ago. And there's a certain way of healing, of meditation based on a technique called exchanging suffering with love and compassion to learn.

It was more like how to do it inside our body, to really heal ourselves. But the basis is that every cell in our body, every tissue in our body, every organ, nobody wants to take nourishment and puts out what it doesn't want.

That's a basic metabolite, and it has boundaries. We talked about the gut lining. We talked about the brain blood barrier. And every cell is a membrane.

And you decide what it takes and what it pushes out. The only organ that functions differently is the heart. The heart, except the dirty blood from everywhere.

That's remarkable. Okay, it doesn't say no. And instead of fighting it, instead of creating a survival response that creates negative emotions, it expresses inflammation.

And or what is autoimmunity theory? It's we fighting ourselves. That's absolutely. So there's a quality of acceptance really. People can just put their hand on their heart, just feel this warms, you know, and just melt into it.

Wow, Sal, you don't need to talk right. They can be it's remarkable. So the heart, instead of fighting it, connect with this endless universe through the breath.

Make this transformative exchange in the land. And then it gives without discrimination. The author just gives. The order is a stiff artery. Only ones that nourishes, nourishes everywhere.

It relaxes. And then what happened? The coronary artery opens. The heart nourishes itself. So the heart is selfless in its basis, but the heart nourishes itself.

It's part of nourishing others. And in order to nourish other. So self love is essential. It's part of loving other. It's not narcissism. Not at all. It's exactly the opposite.

It's about sharing. So we talk a lot about loving kindness of the heart and compassion. But the real secret of the heart is acceptance. Because once you accept, you can forgive.

You can't forgive without accepting. And once we forgive, we don't change the reactivity of silver. So in my book, The Survival Paradox, I share about it, you know, in with the Holocaust, being a Holocaust survivor in my family, first child of the next generation. But so it is decades of training in Buddhism and meditation and understanding of biology and that kind of give a flavor of it.

I developed this system called Open Heart Medicine that I offer, you know, people you can go to dear Elias that that common and and sign up to the newsletter.

I do a lot of free sessions all the time in one day zoom retreat every year for free. We get thousands of people like me and people from over 100 countries that are registering, but once a year I do.

In Hawaii every concentrated 4 or 5 days retreat in a in a nice resort on the Big Island of Hawaii in the Manila area, which is really the Big island of Hawaii, is the healing island of Hawaii.

And this and we see a lot of healing happening in 4 or 5 days. So the next one is in September 9th to 13th. And so anybody interested you can go to my website tool.

And your website is Doctor Elias Diaz. And I see.com. Okay. Well, Isaac, this has been, truly wonderful. We've learned a lot of great information about, galectin three, about modified citrus practice and, practice law and open heart medicine.

Thank you so very much, for speaking with me. Thank you to.