Podcast Introduction and Lyme Overview

infectious disease society got very upset because some of us were using intravenous antibiotics, which they thought were a very dangerous thing to be doing, and for long term, because sometimes that's necessary.

Not that often, thank God, but sometimes it is. And it became this battle, instead of a battle of science, it's now a Hey there. Welcome to the Recharged Biomedical Podcast.

I'm Dr. Edward Park. If you're curious about regenerative medicine, you've come to right place. We're diving into the latest breakthroughs in telomerase activation, stem cell exosomes, and all the cutting edge science that's shaping the future of healing and longevity.

Let's get started. Hi, everybody. This is Dr Ed Park, the host of the recharged biomedical podcast today. He is going to explain to us everything about Lyme disease and related illnesses.

Thanks Eric. Hopefully we'll get to, I don't know about everything, but we will talk about lyme and the other, like we call chronic complex illnesses because, you know, yeah.

Absolutely. Absolutely, thank you so much. And he spent many decades working on this. I need to warn you that his camera is doing something. So if he leans back, he'll turn green, but when he leads forward, you'll return regular color again.

It's not a glitch, it's a feature. Okay, so let's start at first principles, okay? Lyme disease, as I understand it, showed up in the 80s near Lyne, Connecticut and some kids, and it is a tick-borne illness.

It's a regular disease, but then it can morph into a more complex disease. Right. And so let's talk about it. We're going to get into the three B's, Borrelia being Lyme disease but also Bartonella and Babacia, which are often co-infections.

we're gonna get to standard treatment, clinical treatment diagnosis, all of that. Take us back to the origins of Lyne. Some people thought it was a bio weapon that escaped.

Do you think let us get that out of the way? Possible, possible, unknown. P plausible and possible. You know, it's an unknown, but because lime has been around for thought and lime is not a new bug.

It's been round for eons. What makes it so difficult for some people is that it is a very evolved organism. It's got a lot of DNA and a lots of ways of evading the immune system.

But the reason we think or some people think strongly or believe strongly that it's a bioweapon is because it said it has been around forever. And in the 80s, it became an epidemic.

You mentioned Lyme, Connecticut. Well, there was a whole lot young kids who started showing up with things that they thought were juvenile rheumatoid arthritis.

You know, with these swollen knees and other joints that were acting up. Then Dr. Bergdorffy found the spirochete and it was named Lyme disease after the town of Lyne.

And why people think it weaponized is because Lymed, Connecticut is not far from Plum Island, which is a little island in Long Island Sound. That was the site of the army's bio-weapons.

Origins of Lyme Disease and Tick Exposure

And so we'll shelve that for now. So let's talk about what Lyme is. It's a tick-borne disease, right? So typically it has its incidence more in, or appearance more, in the summer and people are out hiking in short pants and stuff.

Used to be more of an East coast thing. I've heard it's migrated as a result of birds and whatnot all over the country. so you can get Lymen anywhere.

We can't say it. Oh, absolutely. I mean, they used to think it was very geographic. Back in the 80s, when I was practicing in upstate New York, I in was in Adirondacks and we were told there was no Lyme disease in it.

It stopped in The Catskills, which for people who don't know their geography is about a hundred miles south of there. And which is totally absurd. And the same thing when I moved out to California in the late nineties, I know most of the doctors out here said, oh, there's no Lyme in California.

These are all just crazy people. But we know there is a lot. Now, if you hike in The Woods by San Jose and down by Santa Cruz, There's lots of signs, watch out for ticks and all over California, we that.

It's all the world, but in United States, it's in every state. So let's talk about the vanilla garden variety lime. Like a person gets bit by a tick. Let's say they're lucky enough, which isn't in most cases, to notice they got bit my tick and then they might develop the clinical symptoms of a target lesion, Which is where it gets its name erythema migrans, which might look like a red bump and maybe a white circle and another red.

So it forms a targeting somewhere on your skin. And that's very classic. Hard to diagnose early because the serology or the antibodies haven't been generated.

So that requires a clinician to be ready to say, oh, you were hiking, You got a tick bite. You've got to target lesion. Let's just put you on antibiotics.

Do I got that right? The general belief system and like, people call it a bullseye. It doesn't have to look like that. I mean, that's the classic, but it can, lots of different rashes can be limed.

Generally the, I said, the classic story is, yeah, spring, summer, people are out there hiking, getting bit by ticks. And the thing about a tick is that it necessizes the skin.

So people will say, oh, I didn't get, well, you don't have to feel it. It often can hide in the genital area, in your neck and the hair, underarms, all kinds of places where you won't see them.

The belief is they have to be on the body for a while before they'll inject Lyme, Borrelia, into the person. Not only Babesia can probably pass quicker, because Lyne lives in the tick's gut and it has to passed up into these salivary glands and that takes time.

Okay. If you quickly brush off a tick bite, you probably are… In other words, yeah. And especially if you brush it off, unless the tick has finished feeding, and in that case you'll notice that it's a little big, because ticks are…

Yeah, blood. So if left untreated, you might, as a parent or a person, an outdoors person realize, hey, I'm feeling achy, like a flu symptoms, maybe some myalgia, sore muscles, or whatever.

It might feel like a summer flu, right? But maybe without respiratory symptoms. Yeah, you should have them too, but usually it's that feeling tired, achy, headachy.

It can be cough even. And that's the thing is that, most of the bugs that cause mild colds and things, they're not going around much in the summer. So that's a good hint.

If you get pretty sick in the summertime, Lyme is high on the agenda. So important for people and clinicians to

have that index of suspicion. Hey, did you go hiking, camping?

Or could it be this? Okay. Especially in any of the wooded areas, any the suburban areas. There's lots of deer floating around people's backyards. I mean, that that, it's the issue.

It's all. Right. So basically, the good news is if you treat it with antibiotics, macrolides, let's say like doxycycline, most people upwards of 70% even with or without treatment, but especially if treated early, we'll be free for life.

The best answer for absolute statements about Lyme is we don't know. We do know there are a lot of asymptomatic people with Lyne, okay, because we've seen that in families a lots.

They'll come in and like one family member and maybe one kid, one parent and one child will be infected and have symptoms. But if we check the whole family, many of the asymptotic people also come up fairly positive.

And the argument is, is it gone? Does your immune system take care of it? And it, you know, someday we'll know. At the moment, we really don't. Fair enough.

Let's talk about diagnosis then. Okay. So, yeah, long time ago, I did a master's in public health. They taught us biostats and I'll put up a graphic for the audience, but basically we have sensitivity, which is the ability to find disease.

Specificity, which is ability find a specific disease, We have positive predictive value, the ability to predict a positive case of Lyme in this case and negative predictive values.

So because there are different kinds of testing, I mean, you have ultra sensitive PCR and then you had the classic serology or ELISA, right? So your body has to make the appropriate antibody that can be detected.

Otherwise in the first two, three weeks, she might not even be detectable. Well, usually the IgM turns positive pretty fast, you know, the first week or two in most people, yeah, if you test quickly.

The IgG usually takes three to four weeks to come to become positive. But the issue we have is that a lot of the times that they're doing just ELISA's and they are lousy tests for Lyme.

You really need to do a Western blot or an immunoblot is much better. That's the next advancement.

Early Symptoms and Classic Diagnosis

Because based on ELIZA, You're going to miss a lotta patients. the doctor or the medical assistants just checking a box. Exactly. And that's why people develop a clinic line because it's usually missed.

It hasn't reached the exotic or more specific and sensitive testing. No, no, this is a great thing. public health debate, the Infectious Disease Society seems to be stuck on the idea that the ELISA test is a good, accurate test.

Is, like you say, is accurate in the sense that if you got it, if it's positive, you probably do have Lyme, but the problem is that, as you said, it very often the negatives are false.

Yeah, positive predictive value is good, negative predictive is not as great. Okay, we'll put up a graphic for that. So be that as it may, fast forward four to six months later, all of a sudden I'm having neck pains, my joints are hurting, and I am a young person.

At this point, I go back to somebody who knows more about it, the immunoblot test. Is there any role for PCR to detect particles? This is mostly an intracellular infection.

So, PCRs are very low yield. Now, there are techniques of culturing the blood and growing the bacteria and then doing a PCR, and that's a bit better, but it's still not a I wouldn't consider that the first-line test I would do.

The first line test, I think, is the immunoblot. There are T-cell tests now that can look to see if the immune system is really fighting the bug. Whole medium-term testing is predicated on relatively competent immune systems producing specific antibodies.

I've heard people need multiple meds or longer courses, but it is treatable. Let's talk about the intracellular aspect because that's what gives it its unique flavor.

There are little spirochetes that they can spiral into tissues and hide intricellarly. So this is partially responsible for something they call the Herxheimer reaction.

I think when you actually attack and kill for whatever mechanism, the cell, sometimes a bunch of new or latent hidden intracellular spirochetes or whatever particles that are immunogenic get released and you get this awful feeling.

Can you describe? The traditional view of the Herxheimer Yaris response is named after two fine doctors. It happened when you treat an infection and you get a big release of cellular, actually of cell membranes of bugs, which flares your immune response.

Your immune system gets very activated. And, you know, I always like to remind people what makes you sick most of the time in all illnesses is your immune reaction to the bug, not necessarily the book for most common infections.

And that's what happens. You just get a large outpouring of inflammatory chemicals from the bugs, which sets off your system and you feel really bad for a few days.

The HERX has been overused to the point where people now call their HERCs when anybody has an immune response to almost anything when you're treating.

It's lost its… Yes. Okay. Well, let's pivot over to The Three B's because it's always fascinated me. I'm not an expert in this field, but patients will come to me and we talked about that gal with the Bartonella.

Borrelia burgdorffii, as you explained, is Lyme disease. But then there's Bartonella, which is a gram-negative, totally unrelated thing, but somehow up to 30%, they can coexist.

And then, there is Babacia, a parasite, it's not even a bacterium. So these can sometimes cluster together. They have totally different symptoms. Describe to our audience what the different systems are.

Let me throw in one little twist on this is that the problem these days is Borrelia. There are many subspecies of Borrelia. My taxonomy is not great, so I don't remember if it's subspices.

There's the European kind, there's Afselli and Gurini in Europe, which we're also finding here a little bit. There are a lot more of them. Recently, we find a lots of miyamotoi, some people call tick-borne relapsing fever, also a Borrelia species.

It's pretty popular in California. It does get a little more complicated, but that's Borrelia. They tend to give similar symptoms. Initially, usually you feel like you have a cold and then months later you start having joint symptoms and it can obviously go to the whole body.

One of the big things we're concerned about, which doesn't happen that often, is myocarditis and also heart block, you can have the neurologic findings that can be, can get neural line, which is encephalopathy, besides bad headaches, confusion, brain fog, lots of other good things.

But the classical For early Lyme, the classical findings are joint pains, especially the knees, shoulders, elbows. Those are kind of the classic things.

And then lots of times people go on to the spinal pain, cervical and lower. Then Bartonella is an interesting bug

because it doesn't have to be, it's transmitted by ticks, but it also transmitted lots by biting insects.

Yeah, they're just looking for sand fleas and things like that. That's often how people come back from Europe. They're on a vacation at the beach and they wind up with Bartonella, not an unconfined finding.

And Bartinella it's, it, They all cause fatigue if they are there long enough. Bartonella can cause also a lot of headaches. You know, one of the classic signs of Bartronella is pain in the bottom of feet.

Things that sound like you've got plantar fasciitis, but it's not. And also in Bartnella, we tend to see more symptoms in their hands, the wrists, hands and ankles and feet tend be more.

I mean, it can cost larger. joints too, but that's, if someone comes in with a lot of, you know, those kinds of pains, we think more Bartonella than Babesia and then, I mean, then Lyme.

Babeseia is interesting because Babesa is a relative of malaria, so it causes often lots of fevers and night sweats. and as well as headaches. And one of the interesting things about both Bartonella and Babesia is we see a lot of mood disturbance, a lots of depression, sometimes really severe depression that is really the bug because people can tell.

I mean, many people could notice that. nothing's changed in life and the depression will be on there sometimes just for a day or hours. But it's a very deep, dark, I call it like the, you know, from Harry Potter, the Dementors, like just soul crushing, nothing, there's no pleasure in anything anymore.

Life is empty and it really… Yeah, it's very common because of air hunger. Now exactly the cause of their hunger is people debate about. It is, but it is very calm and it has a sense of just not getting, you know, if you can't really get a good breath and its very disturbing for sure.

Sounds like they're all insect born. There's a little more variety in how you can get Bartonella. But is that the main reason why they are covariance?

Or in my mind, just as knowing nothing, I'm thinking, you know, these are all symptoms of an incompetent or deranged immune system. How much of it is?

just, you know, bugs versus… Well, it's the issue today we have is yes, the immune systems are being suppressed. These bugs, The interesting thing about them is they're all really, they are not parasites, but they work like parasites.

They are designed to live with us, They're not trying to kill you. Like herpes simplex, right? 80% of Americans have cold sores, and it is only when they stressed out that they show up.

Testing Limits and Herxheimer Reactions

So these three are really good somehow. Right. Eating the blood cells for Babesia. I don't know where Bartonella hides, but Bergdorfia definitely hides intracellularly.

So they want to be long-term. And in order to do that, they play with your immune system. Okay. They talk to your system, one of the famous examples is Lyme is very good at increase.

It secretes chemicals that mimic IL-10, which is a chemical, an interleukin, of one the cytokines that your body makes that normally is designed to help to quiet your immune system down, because when you fight things, you go through an aggressive phase of the immune systems and then you quickly want to quite it down.

If you don't do that quieting down you get into trouble. Well, Lyme sends out that signal to quiet it down. And so it helps maintain itself and Lyne also changes the antibodies that it secretes.

So it can fool your outer surface proteins. Yeah, there's A, B and C, but there is. There's actually a few more of them, but those are the main ones. By doing that, at different times of their life cycle, when they're in tissues, they'll secrete different antigens.

The antigins are what your body sees, the proteins your bodies sees to make antibodies against. And by switching up their antigens, they can confuse and delay effective immune response.

You know, that's how they take up residence right away. Yeah, it changes, but the idea is that the flus aren't there to hang around. Flus come and go.

And that that has been the problem, I think, in medicine. Okay, just let's go back to something that I really think is important of why these infections have been so difficult for American medical societies to accept.

Is a medicine got stuck on the idea that infections got in you and killed you or you survived. Yeah. And they somehow forgot about things like tuberculosis, you know, Brucella, whole lot of infections that do.

Yeah. Yeah, they get in the body and they stay for long periods of time. They evolve over decades. You know, I'm syphilis, you know a relative of Lyme.

We call it the dumb younger brother, older brother of line because it's not, it is nowhere near as sophisticated as Lyne, but it also is very good at hiding in a body for 40, 50 years.

Yeah. But it seemed like it is much more amenable to this treatment. Yeah, luckily syphilis in the old days was super sensitive to penicillin. So even if somebody had tertiary syophilus, you know, or you could treat them, and again, that's where the Herxheimer came in because they often had a lot of bugs.

You treat and they would have these big flares, but they'd recover. Now, so the idea that you had these chronic low-grade infections that produced symptoms that didn't give you abnormal blood counts.

Okay. Because again, medicine had the idea and still does that if your CBC and your metabolic panel of like, you know, eight to 12 chemist chemicals looking at your liver function and kidneys and electrolytes, if those are normal and you're complaining of feeling really bad, then you are probably just a complainer.

And unfortunately, that's what evolved because the doctors went through this period of time when we thought we were so smart that if our tests didn't show what you had, you didn' have anything other than what we're dealing with today is this battle that evolved, because people came in with these long-standing complaints, we would find using the secondary Lyme test, the immunoblots, that they did have Lyne.

Their Eliza's might be negative, but they had Lymen, and then we treat them with antibiotics. The infectious disease society got very upset because some of us were using intravenous antibiotics, which they thought were a very dangerous thing to be doing, for long term, because sometimes that's necessary.

Not that often, thank God, but sometimes it is, and it became this battle of the, instead of a battle science, it's now a Battle of religion. Speaking of which, you know, when we talk about COVID, I saw this meme yesterday by someone alleging to be Neil deGrasse Tyson.

And these days social media is much more interesting when you read the comments, right? So he posted a query, how many people got the mRNA shots and what do you think of it?

And so the first 50 comments, I got six, towards the bottom started to lurk in, but because they know it's not their form. If you're not a fan of X, Y, and Z, you are not going to post on that blog, right?

But I had a patient yesterday who I consulted with and relatively a neurotypical child until the second COVID shot, which may or may not have, depending on your religion, been associated with a downturn, a down turn which developed into new onset autism from a background of ADHD, But very autistic and intermittent pans-pandas.

So, you know, people will say, well, vaccines are safe and effective. Was this really a vaccine? It's a totally different mechanism. I'm not sure how the body's supposed to know what friendly spike versus unfriendly spike is.

Again, it becomes a religious debate. And nowhere is the religion stronger than in our physician community, where we're actively telling neighbors, friends, you know, and relatives to get a vaccine.

I mean, I didn't get it. And I did want to. But my kid was so proud when he came home and said, see I got my vaccine, said see the second to last paragraph, it says you might get myocarditis on the consent.

He did get low level. So I think it's important to realize that.

Lyme Co-Infections: Bartonella and Babesia

You're pointing out a very important character flaw in modern medicine, which is that nobody, we're not AI. The AIs are much better now. We can't consider all things.

I'm even the chapter in my book on immunology and, you know, T cell expression. And I've forgotten most of it and I wrote it. So at some point I did understand it, so patients have to have a little grace with doctors.

They don't know everything. they only have, 18 minutes to talk to you. You know, they have to be their own quarterbacks in a way. So you have find out a specialist that's doing the testing.

If you get diagnosed, you don't have become a professional Lyme patient for life, but what are the treatments they can do to emerge from chronic Lymes?

Let's go back a minute about it. We're morphing from acute Lyme, which is a problem for a lot of people. But again, as you said, I am sure that millions of People recover with no problem, we think, but we don't know what happens later on in life.

One interesting aside is when they looked at some brains for people with dementia, they really haven't found Lyne, But they have found Bartonella in quite a number of them.

So it's interesting that a Lot of these bugs affect the brain. You know, just through the cytokines, the inflammation in the body that they produce without even having to be in, get into the brain.

But some of them do get in to the. And, you know your, but your immune system works even in your brain and your. Brain has its own, it's pretty effective.

Persistent Bartonella can be a risk factor. So when we get to the, the chronic illness, The chronic is as you started to say in the beginning, I think is that that's, that you, That's your body.

Okay. Getting infected with the bug is the. And most of our bodies work well enough that we can take care of a lot of these bugs. Cause I said, we co-evolved with them.

We wasn't, you know, they don't wipe us out. we, get them, We knock them down sometimes completely. Sometimes not. Here's the thing, this is how I look at it.

I mean, there are many people in the Lyme community who still feel that if people have chronic symptoms, you treat them with long-term, six months, maybe a year of antibiotics, or three months to 12 months of antibiotic and people will recover.

And a lot of people. Okay. I tend to, it's a thing of self-selection over the last 20 years that I've been really in, well, 25 years now, that's right, but I'd been treating Lyme disease.

You know, I started with that paradigm, But we just attracted people who were more ill, who had been ill longer,

Who had being ill for five years, 10 years 20, 30. And when you start finding that population, It's really more, how their body has acclimated to the infection and what allowed this to happen in the first place.

And this is where toxicity comes in. I really strongly feel that what's happened in our modern world, why we have this huge increase in these infectious diseases despite Some of it might be a little bioengineered here and there, but is the toxin level that is affecting the immune system.

Just like the autism, it's not just that we're vaccinating and the vaccines are triggering an immune response that's increasing the levels of autism. But just look at all the kids.

with allergies and autoimmune diseases and inflammatory bowel disease and diabetes. I mean, these were non-existent in kids 40, 50 years ago. You just did not see inflammatory bile disease.

And you hardly saw any significant bowel diseases other than a little constipation in children. Yeah. It's interesting. A year ago and we've had 47 iterations and there are certain things that you're kind of alluding to that are coming back.

Gut dysbiosis, toxicity in the environment, AKA, you know, glyphosate and other engineered foods. But yeah, there's also probably a webinar I did on. Electro spark, you know, who knows what affects these high, You know the wifi is having on us all the time.

So I do ask for your point, but you there is a sort of underground secret handshake community of Lyme, which is great. I just said they have to be their own quarterbacks.

That's great, But the downside of that is that I had one patient who had 20 plus years of chronic Lyne disease with symptoms like, joint pain, brain fog, POTS.

you know, chronic immune response. And she had never once touched, let antibiotics touch her lips because she'd already got point A to C, which is that doctors don't care about us.

You know this is chronic. I'm stuck with it. Which to me, I tried to argue with her and say, you have to at least try because you're not in the technically failed treatment chronic Lyme category.

But it was such an identity lure for her. And I'm like, you're suffering, at least try it, so what do you think about that? I call that going through the front door, in the sense that yes, if you've never taken antibiotics and you have classic Lyme symptoms, we're clear that you had Lymes, I think that treating it directly is definitely worth the shot.

If people don't want to use antibiotics, the herbs work. They just take longer. Okay. If you will take, if you were willing to stay on the herbs for a minimum of three, usually six to 12 months, people, a lot of you respond.

if. You're willing. To take antibiotics. I've seen antibiotics work a. Lot. That's why I used to use a, lot. When I saw people who were earlier on in their process, I use.

A lot more antibiotics with success. Okay. I want that really clear. It did. Uh, I did an interview with Jill Kristen. She goes through like six or seven different bioactive plants you could take and you can do both.

But, but it's like, so your practice has morphed over the years to kind of emphasizing other aspects other than big pharma is the patients. See, that's the thing is that patients self-select.

Okay. And so, yes, it is because we treat people who've been sick for, you know, more like the five to 20 year period, we tend to get people, who have usually tried antibiotics already and failed, or whose bodies are now so sensitive that it's not generally a good idea to go banging in there with the antibiotics.

However, I can tell you that in my early years, when I was treating people with much earlier illness, The antibiotics work wonderfully for many, many people and so they're not evil.

It's a question of when to use them. So holistic health, things like zeolite for gut binding, vitamin supplementation, maybe some elimination diets, some natural oregano type of plant antibiotics, those are all really good things.

Holistic health. Meditation. Breathing. There's lots of ways you can improve your immune function, get out of that highly activated inflammatory cell danger.

Chronic Lyme, Immune Dysfunction, and Treatment Debate

It's the question of what order to do things. And again, it depends how long you've been sick. If you're at this point, if you have some minor joint issues and you're otherwise okay.

I think antibiotics would be a good idea, but if you didn't want to do that, just cleaning up your diet. You're taking care of your gut, taking herbs.

Absolutely. Once you've been sick for a long time, it's your body's compensations. To the bug and to the other things that's going on in it. That's where the long-term toxicity plays a role.

And the fact that once your guts been inflamed for a long time, you're no longer absorbing your nutrients, especially your trace minerals as well as you used to.

So the body's ability to function now has to be looked at from a different angle rather than just how can we like clean you up a little bit and support you.

My analogy is that if you've been just overworking, okay. And you're stressed and you just doing too much and not resting well and kind of eating garbage and, you kind fall apart.

Well, yeah, doing the regular functional medicine approach, which kind outline, we just, learn how to relax. learn how to pay a little more attention to what you feel into your body, you know, clean up your diet, take some herbs and maybe change the microbiome a bit, but mostly cleaning your diets up is going to do that and relaxing, all those things and people get better.

It's just that the people that we tend to see are the ones who've fallen off the wagon. Like, it's a little bit like, I guess, you know, your car's not running well, and you can take it in for a tune-up.

But if your gas tank is full of garbage, the shocks are gone, then you've got to do a bit more work. You guys all call it complex disease, because again, to reiterate what you said, you know, medicine loves a story of, disease magic bullet cure, right?

They don't like the whole messiness of immune dysfunction, lymphocyte expression, it's all too much. But, you know, I find it really challenging to deal, we're just launching this online course I've had for a few years.

We're adding three autism modules and the amount of overlap between chronic Lyme and Autism is interesting because they have these co-infections. They have this immune and autonomic dysregulation.

And I just wonder, what is that about? There are so many pathways in and not a lot of great pathways out. How do you get so faqaqta, pardon my Yiddish, in terms of your health and balance?

They are similar. Autism in young people happens for the same reason that chronic fatigue happens in older people. It's just that when you're young, your brain is developing.

And when you have a lot of inflammation in the central nervous system, like the GABA receptors, the things that Valium acts on, you know, things kind of chill you.

Well, when your very young, that first three years of life, those GABa receptors are actually more excitatory and then they change and they morph as you develop.

They calm you down. And if those systems don't complete their pathways and development and you get inflammation, you'll get a lot of the same behaviors.

To my mind, it's basically all persistent inflammation on top of your genetics. It comes out differently depending on how you're wired and also at different ages.

One of my mentors is Dr. Robert Navio, Bob is the guy who's kind of like promulgated this cell danger response, but he started his work in this area with autism.

He started working on his ideas of mitochondria and inflammation, and he showed how a lot was affected. by experiments on creating autistic mice, mice that had behavioral patterns that look like autism and their microbiomes are different than the normal mice.

I think it's interesting in terms of like a friend of mine introduced me to Navio's work and cell danger response and at first I thought it was an anthropomorphization But then when I thought about it, you know, I keep on hearing this rhyming and that inflammation causes aging, inflammation, causes dysregulation.

And I think that that's probably the mechanism, according to Dr. Nika Goshen, who did the modules for our training, it's attributable risk or attributable contribution to autism is 50% for vaccines.

So what is about vaccination? It can cause neuroinflammation, right? So it's a plausible thing. So that's why I think exosomes are so great. I have a patient who has Lyme all up and down her vertebral spine and is really a functional cripple.

But if we do epidural injections, she'll get a six to 12 month respite, either from decreased inflammation or regeneration of ligaments tightening things up.

So that's why in my book, again, shameless plug, I wrote a specific chapter because it comes up so much. What about Lyme? Can I take it if I have chronic yeast?

I had to be very less than sanguine in terms of cautioning people because even early this week, my mom was giving me injections and I didn't IV because I've had this terrible radiculopathy from being chiropractically torqued.

Anyway, I was coming out with a scratching throat and then I got a cold because it inhibits your antibody production. So good news, bad news. It'll decrease the inflammation.

But if you're having an acute infection that requires antibodies, then best not to take it. I always tell people, look, Exosomes can regenerate tissue.

They can generate nerves, cartilage, ligaments, whatever. But if you're actively fighting it, it's a Faustian bargain. You might get worse. And the evidence of that is one or two cases of shingles and maybe one of two case of cold stores activation.

So again, If you need your antibodies, like a recent hip replacement, I wouldn't do it, you know, because give it 10 days of sterilization before you suppress your antibody.

But if you're talking about immune activation, that's why Armin has launched this, Dr. Nika Goshen. He's treated dozens of kids with autism, and it just seems to help their neuroinflammation, which has the downstream effect of decreasing all the dysregulation.

So, you know, we're hopeful. It's not going to reverse the physical pathology unless it regenerates brain, but he's hopeful that it's making a big difference, as is Jody Repko, who also both have kids who are profoundly autistic.

I mean, least we see that all the time because, You know exosomes at the right time are helpful. Again, I think that is all about timing at what's happening because so many people with this chronic inflammation, the bugs are no

longer that active.

It's just the body is stuck in a response pattern. The body's inherently neurotic. What is neurotism? It was repeating the same pattern over and over again.

Could we all do that? That's life. I never met a normal person yet. We're all a little neurotic and weird. And the body is the same way. It's a way to defend itself.

The problem is it has to learn how to turn off those defenses. Normally, that's part of the process. you get stuck in these loops of inflammation. And so that's where the exosomes can be helpful as part of the process.

But if you happen to be in a process in your system at the time when you need your immune response to more inflammatory, might not be that, as you describe it, it might be the right moment.

It doesn't mean it's never the moment because these bugs do not, that why they don't kill you. If you, when you have an overwhelming infection with staph or strep or pneumococcus in your lungs, you know, if you're, If don't kill it, it will kill you.

It's going to keep reproducing until either you die or it dies. Okay. When it gets in the wrong organ. Now, the streps or the staf is in you skin. Okay.

You can live very happily, you know, unless you get an eczema from it. But, but most people, your skin is colonized with all kinds of bugs. Your gut is full.

I mean, like all these things that will kill you if it's in your bloodstream, the Klebsiella, this pneumonia. So your body has ways of, of having a balanced relationship.

Okay, with the bacteria. but once you've lost that balance and things like Lyme, once they get into your. Since I don't. I don't think Lyme has evolved with us long enough to be that helpful to us.

Things like EBV and HH6, these are viruses, Epstein-Barr virus and human HERPY6. been with us for billions of years and they're actually part of our immune system in a way.

When they are at low levels… Well, another interesting topic. I mean, of course we have commensal bacteria that produce our vitamins and neurotransmitters, but the idea that, you know, one, two, three, four, five diseases of childhood are training our system and the ideas that rolling around in the dirt and being exposed to microbes is part our training.

You know, these are kind of heretical, but very common sense ideas as to why kids don't have confidence. I mean, when we were kids, I don' know how old you are.

They used to have chickenpox parties, right? Chickenpox party. Can you imagine?

Holistic Care, Exosomes, and Chronic Inflammation

One kid would get chicken pox and all the kids would be sleeping over so they could all get it and get over with and natural immunity. Try explaining that to a millennial or Gen Z now.

I had somebody who almost relative who just had a baby who didn't want anybody to see the kid until they had their two months worth of vaccine. This kid's gonna grow up in a bubble.

It's insane. I mean, because I am very old, thank you. My 75th year, as they say, and I've been around a long time, I think I had to live with kids and grandkids growing up in this world of fear and self-protection that doesn't get you anywhere, okay?

We're all gonna die, people are gonna get sick, there's always a trade-off. When you try to protect yourself so well, you limit your life and you're living in fear, which isn't a real problem.

Yeah. That's how they get you. I mean, there was a meme during the quote unquote pandemic that the Gen X, I means the gen Z and Gen Alpha and all the young people, the three biggest threats to humanity are COVID, institutional racism, and I don't know, some other thing, climate change.

And they're not thinking like, oh, we just hit 39 trillion in debt. Like people are actively killing each other with planes and drones. That's not their concern.

The corporate food supply with. medical, I don't know. I want to touch on one tick-borne illness that hasn't got a lot of press. It's called, and I used to be a fan of cruelty-free lab-grown meat, but there is this thing called Lone Star Tick Meat Allergy, or alpha-gal sensitivity, which is a lesser-known but up-and-coming tick borne disease where people are allergic to pork and beef.

And so the question is, what's up with that? Like, was that another bioweapon, the Alpha Gal, or am I just going to, I'm putting two together and getting 22. Like how, all of a sudden, are people allergic to me?

Oh yeah, no, it's coming. It's mostly on the East coast in the South is where they have the most of it. The patients that I've seen with AlphaGal have come actually from New York.

Yeah, and it is frightening because you literally, people get anaphylaxis from eating a hamburger or just accidentally eating meat. And it a real problem.

I think one, but they are working on it, That's what happens when you get old. I don't remember it, but people have coming up with some good ways of dealing with it because it's really a problem.

And again, I didn't know how that relates to Lyme directly, There are a lot of infectious diseases, not just, you know, like the rickettsia family, which people think it causes Rocky Mountain spotted fever.

Again, doctors know about Rocky Mountains spotted, because supposedly if you get it and you're symptomatic and don't get treated, there's a very high chance you going to die.

So we know. There are like, I mean, this was years ago, there were 400 known variants of rickettsia and they do different things. And so there's a lot of these infections that live in us and that we get when your immune system is not optimal anymore.

It begins to get into a battle with these things and if it's battle royal, life or death, well then medicine often helps. But if its a squabble. Okay.

Medicine doesn't understand it and they won't, this goes back to my point in the beginning, because they're stuck on looking at 15 markers of whether you're okay or not okay.

You know, and that, you know the blood count and the basic chemistries and until doctors start listening to their patients and paying attention to what they are telling them and believing them.

Even if they don't understand them, that's the biggest issue in medicine is that I don, when I see a patient, I mean, i've been listening to weird stories 45 years now, so I'm, more acclimated, but I still remember the first 15, 20 years.

I would, my, uh, do the old quietly cause I hit it, But I will do with the doctor eye roll. Yeah. You know, like, yeah, you're reacting to water. You got to be crazy.

But that does happen. There's a lot of bad stuff and we won't go into the whole history of the Obama administration defunding bioweapons research, but it's like…

We're entering a world where people are just controlled by their fears, I think, and their politics, which become religious. I mean, to this day, you know, people who are still all in on this mRNA thing, even if they know people have died or become injured or claim to have been injured.

So anyway, religion is a very strong word. You know vaccines? can prevent death and real bad sickness. Vaccines can also wallop your immune system and it depends on your system.

And now the new vaccines, now, the mRNA vaccines are new kettle of fish. Okay. Because they have really up-regulated two things. One, they're getting your body to reproduce the bug.

not the bug, pardon me, but the antigen, yeah, which the protein, again, if it worked the way it was supposed to, that it would be gone within, what was it, 18 hours when they first came out, then 24 hours, and three days, oh no, now we can measure, I mean, you know, because there are labs in Germany that can measuring persistence of the spike protein.

You know? And as well as you can mention the fact that the antibodies are going away. Yeah, so that's the thing that never made sense to me. How is your immune system supposed to know a friendly spike protein on your cell versus an unfriendly one?

It was supposed, it was suppose to be metabolized, albeit slower than the normal metabolism of a piece of messenger. We know that now, but anyways, the point is that when it was developed, that was the sales point.

But luckily, you know, there is personalized medicine. They have great things like Gordon Medical Associates who can take care of you if you're maybe struggling with Lyme.

So there is personalized medicine, but vaccination on a mass scale is sort of like propaganda on mass-scale. Most people, it's benign to maybe positive, But some people don't react well.

You mentioned the genetics.

Alpha-Gal Syndrome, Vaccines, and Closing Remarks

When we get to the point that we actually can measure how your immune system is working, genetics, proteomics, you know, will give us that point. We'll be able to know better the kids that, we definitely should not vaccinate, at least not early on.

Well, we should be there now. You know, I guess it's all about the denominator and the cost. And also we have lost track because I don't think the public health doctors are evil.

They're just looking at different outcomes. Okay. Vaccination does redo, like you say, but when I grew up, everybody had the measles bumps in rubella.

When I was in practice, when i was seeing general practice and hardly any measles, mumps or rubella. I mean, you know, it just wasn't there, because the vaccines work.

The question is, what price do we pay for this? And then, and because they didn't see a price tag, they started throwing out instead of three vaccines, five vaccines six vaccines.

Now, six vaccine and that. Yeah. That's what they're now paying attention to is you can't keep slapping the system and expecting nothing to happen. Anyway, we're not going to fix that one today, but I would love to get the discussions going where we realize that it's not an evil empire.

I mean, whatever people have to say about the good Dr. Fauci, I don't think he was deliberately trying to cull the herd. The public health people really thought they were doing good work.

It's just they not willing to look. No, absolutely. But, you know, as far as like, being an MD and having a master's in public health, they have a saying, if you look around the table and you don't know who the idiot is, then it's probably you.

I just wonder how much of our careers has been just being apologists and useful idiots. And at some point, you know, we didn't ask the basic questions.

Like, how do we know? Like I had a lay person tell me the biggest advance in public health was clean water. It's kind of hard to argue. But yeah, chicken pox parties, that was a real thing.

I mean, I'm Gen X, you're a boomer, but people would intentionally infect their kids with chickenpox so they could all get it out of the way and have herd immunity.

putting our brains together with, you know, and if the AI doesn't kill us, if we using it well, we can do great things. But that's the same thing as the vaccines, using them well but we don't use them.

Well, so we have concerns what we're going to do with this world. Let's hope we all do our parts and you're out there fighting the good fight. So thank you, Ed.

As are you. Thank you Dr. Gordon, Gordon Medical Associates, they do telemedicine and he is a wealth of knowledge and eventually he's going to write a book.

Okay, thank you. Are you here first? All right, Thank you! Okay everybody, if you like this discussion, like and subscribe to the Recharged Biomedical Podcast.

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