The Hidden Inflammatory Cascade Driving Cognitive Decline Transcript

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Introduction to Alzheimer's and Inflammation

Hello and welcome back to the Reversing Alzheimer's Summit. And have we got a treat for you today? We are with Doctor Robert Silverman. He is one of the leading educators in the field of chronic inflammation and all the different ways in which it turns into a range of chronic illnesses.

And he has a special interest in Alzheimer's and is going to be bringing you some incredible insight into what's going on physiologically in the body to create Alzheimer's and then what can be done to reverse it.

So welcome back. Thanks so much for being part of the summit. Thanks for having me. I appreciate being here, and I'm really excited about the opportunity to to drop some knowledge bombs on Alzheimer's, how to prevent it, how to reverse it, and how to make people healthier, not sweat it.

Beautiful. Well, tell us a little bit about let's start with chronic systemic inflammation, which I think is when Doctor Berk has shared with me. It's ultimately that's where in the business of identifying where that inflammation is coming from and removing it.

But it seems like this is the central to this emerging paradigm in understanding where where Alzheimer's comes from and how to avoid it. Without question, chronic systemic inflammation is, as you said, a central driving factor in age related cognitive decline in neurodegenerative diseases, i.e.

just like Alzheimer's. And believe it or not, even in Parkinson's, it acts as a bridge between peripheral immune activation and brain health by breaking down the blood brain barrier, triggering neuroinflammation and accelerating neuronal damage.

Interestingly enough, inflammation, I believe, is the backbone and the ruination for many of our health care issues. If I had a credo to share with everybody post chiropractic career, it would be I want to manage and modulate inflammation, and that inflammation is from the body, from the inside out, which we like to refer to now as inflammation. Right?

Yeah, absolutely. Yeah. You mentioned the blood bank barrier. But ultimately, you know, there's there's a number of barriers, right, that are in the body that play a role in this.

And I think the the blood brain barrier is sort of a new area for most people. But the gut brain, you know, the gut barrier is certainly, you know, something that has been, well studied and is certainly sort of a foundational piece of, functional medicine.

Gut-Brain Axis and Neuroinflammation

What what are your thoughts on, intestinal permeability and dysbiosis and the role that they play in neuroinflammation? I think you hit the nail on the head when you talked about the gut.

So most people look at Alzheimer's, Parkinson's, these neurodegenerative diseases, as diseases of the brain. They're not they're actually a full body failure.

So much so that they're called not just neuroinflammation and neuro autoimmunity. They're actually something that I would like to refer to from the gut to brain axis.

Whatever you do, you got you do to your brain. Whatever you do to your brain, you do need God. I believe that the gut is the epicenter of your health.

80% of your immune cells are in your gut. It's where your macro micronutrients are absorbed. When you got this compromised, all hell gets broken loose.

So a great example would be something, like you said, like a dysbiosis and an leveling of good and bad bacteria. You need about 85% good bacteria to avoid dysbiosis.

If you have the majority of bad bacteria, you have a break in the intestinal lining that break in the intestinal lining leads to the release of something called LPs lipopolysaccharide.

Lipopolysaccharide actually encodes bacteria, and it's called an endotoxin. When it gets through the gut and into the bloodstream, it's really what I like to refer to is el diablo.

In Spanish it means the devil. So that idea of LPs and bad bacteria being exposed leads to inflammatory markers, and an increase in inflammation. That increase in inflammation actually works in a circulatory system because it's systemically, it compromises that good old blood brain barrier, which we referred to before.

It allows LPs to get into the blood brain barrier and once it does that, the immune system is dysregulated in the brain, which is the true definition of Alzheimer's.

And it starts to cascade into planning. Now, believe it or not, most amulets, which is the thing that we're worried about and packing come from the gut. And they don't.

It ends in the brain. It doesn't start in the brain. So I believe that Alzheimer's is a gut issue, adversely affecting the brain, and that it's bidirectional, it's neuro autoimmune.

And believe it or not, it is autoimmune as well. Interesting. I heard last year Doctor Bateson referred to Alzheimer's as network insufficiency, and it sort of ties into what you're saying and actually into the functional medicine methodology.

Right. Which is that as the networks break down and become insufficient, then you end up with this disease. And this is quite the paradigm shift from from where we've been with like looking for, let's say, single molecules that can target specific pathways to a more full body diagnosis.

Right. The body is all interconnected. And I think that's something that we need to express to everybody. And I think Alzheimer's is that great example of a neurodegenerative disease that's a full system failure.

And what's most interesting, I really want to piggyback on what I said earlier. It's an immune dysregulation occurring ultimately in the brain. So your immune system gets confused and starts to attack brain particles.

And it has to plaque. And that plaque is an milliard to things that we'll talk about later. If we get into the idea of testing and not guessing. Yeah. Beautiful.

Well, tell me some of the things that, like, you know, you worked on, on guts, you know, for your whole career, like, what are some of the things that you recommend if you recognize that the permeability of the gut digestive disorders may be at the sort of front end of the causal chain for, you if you're listening to this or someone you care about or some of your patients, what are you some of your favorite tools to to sew that up?

I love testing the gut barrier panel, so I love to test for and look for expression of overexpression of Candida, xylene, occluded and lipopolysaccharide LPs.

So Candida is a yeast. When Candida is overgrown, I like to refer to it as cf0. Small intestinal fungal overgrowth not to go down a rabbit hole. Candida communicates with your immune system and it can cause dysregulation and cascade that whole concept of inflammation.

Flick the switch. So for me, Candida is an amplifier of inflammation and a leader towards or a dictator of

neuroinflammation. Online signaling is the big kid in a in the blogs.

Online is a protein enzyme found by Alessio Fasano. What does that mean to everybody? There's something that we call tight junctions. So if everybody looks at my hand here's a junction, here's a junction and epithelia junction.

And you got together they make tight junctions I can't see you Zainudin.

Dietary Strategies to Reduce Risk

Or provides a functional pull on these tight junctions and pulls them apart when Zainudin pulls enough there's something that's expressed called the clued in, which is the structural tear in the tight junctions.

When these tight junctions are compromised, there are specific things that pass like that shouldn't pass, like large indigestible food particles, bacteria, viruses and pathogens.

Again, they get into the bloodstream, starting that cascade. So if I could piggyback on that a little bit, I would talk about the idea of the microbiota through a compromised got leading to LPs production communicating with the gut on both sides.

Incidentally, now that I'm talking about the gut, I'm a gut guy. I'm also a chiropractor. The largest nervous system in the body is the enteric nervous system with the gut.

So when your gut is compromised that God is communicating with your brain through something called the vagus nerve and is communicating through the whole body and sending disease signals through the body.

Wow. Yeah, that's really, really interesting. We've actually in our, in our mastermind where we have doctors who are working on this is reversing Alzheimer's every day.

We've got a few characters who, you know, came from functional neurology, chiropractic, sort of subspecialty. And I've added in some of this, you know, precision medicine approach and, you know, getting fantastic results because you're dealing with both the physiological and, and the biochemical.

And that seems to make a big impact. You mentioned the gut. Obviously there are different, different dietary strategies that have proven successful with reversing Alzheimer's.

And I'd love to get your thoughts on what are some dietary principles that you think can reduce Alzheimer's risk, and what what should we be thinking about when choosing how to eat?

Well, the dietary ideas are. I believe that food is a potential to for health information. That's good food. Bad food is a potentiated for inflammation.

So obviously food is our opportunity to communicate with the outside world appropriately. So some dietary restrictions. Number one thing I would do to avoid or treat or deal with Alzheimer's is decrease the induction of ultra processed food.

The average American consumes 57% of the calories by ultra processed food. Ultra processed food has a five year shelf life, but it won't give you five years of your decrease.

The idea of ultra processed food that would be number. Acronym called GG. GG no. Gluten. Yes. No. Gluten. Because gluten is shown to be very deleterious to one's overall fact, especially here in America.

Then the P would stand for the ultra processed food. And number three the S the sugar. I would definitely not add sugar to anything. If it comes in a fruit, that's fine, but if it's added, I would avoid that.

For an avoidance of Alzheimer's disease, DNA is another acronym I love to use. No dairy dairy shown to be very

ruinous to the overall health. Nicotine.

I don't care about these nicotine patches. I know people talk about cognitively. I would have to pass an artificial sweeteners. Artificial sweeteners may be the bane of our existence.

If you're going to use an artificial sweetener, use a stevia. Use a monk fruit. Avoid all the colorful stuff that you get in the Starbucks coffee. As far as a diet regiment, you and I both know precision medicine requires us to do individualized and personalized.

However, the brain functions better on fat, and if that's the case, a ketogenic diet would be a great choice to get those ketone bodies to keep ketone body would be something called beta hydroxy butyrate.

So low sugar, low fake foods, more real foods. Those are the dietary easing restrictions that everybody has Monday morning applications and implementations for.

Nice I yeah I appreciate you sharing that. We'll come back to some of the lifestyle stuff. I'd love to just pick your brain on one thing, which is, you know, a lot of patients are mainly focused on their genetic risk for this disease, right.

Because maybe it goes down in the family and there's a lot of talk about that for what do you what's your particular take on, on on genetic risk versus some of these like dietary lifestyle sort of epigenetic factors?

I think it's good to test with the genetics, as you said, ApoE4. So you have three options. When you take an AP test, you can have AP two, 1% of the population has that.

God bless you. You won't have Alzheimer's. Most people have 75% have AP three. So you're kind of like an Alzheimer's neutral.

Genetics, Lifestyle, and Epigenetics

If your lifestyle not as we used the word lifestyle is bad, you're going to go forward towards Alzheimer's. If your lifestyle is good, you're going to reverse and go away from Alzheimer's.

The concern is ApoE4. If you have ApoE4 and if you have two people force, you increase your incidence of Alzheimer's by 8 to 10%. There was a famous Instagram.

I don't know if I can say his name now, Peter Tila with Chris Hemsworth, and he was talking about the fact that Hemsworth has the two ApoE, alleles, but he leads such a healthy lifestyle, works out, etc.

things that will delineate for everybody. Was it a major issue? However, I do believe that genes all the gone. You've heard this before, but they do not fire the gun.

It's your lifestyle, your environment. They're going to dictate your outcomes, your genetics are maybe 25%. They are player. But your decision and your choices in life will lead you down your health path.

Beautiful. Well, let's jump into some of those. So you mentioned some of the dietary stuff, but what what are some of the lifestyle things that you think are critical and that you recommend for your patients who are either looking to prevent this or showing early signs of cognitive impairment?

Well, for me, I like to as I said, I would always love to check for the ApoE e4 because not necessarily because I want to scare anybody. I just don't think I'm American boy and Americans.

And I'll say this sometimes don't respond unless you show them the, the key to downstairs if you. Well, I would also do something. I would do exercise because I think that's a key.

Lifestyle had both resistance flexibility in aerobic. My goal there is not only to have muscle mass, which is a metabolically active organ, to increase something called BNF, Bdnf brain derived neurotrophic factors allows your brain to provide itself with neuroplasticity, and you can rewire neurons if you have any damage.

The key to a mediterranean diet or any kind of low sugar and no ultra processed food diet is great. I'm a big believer and plan forward meaning about 80% plants and 20% protein.

I think of Tom Brady won seven Super Bowls. He may have something on his diet as well. Intermittent fasting. Really robust and intermittent fasting. Let's not get crazy.

12 to 16 hours of a fast per day, 8 to 10 hour window of eating. You know these one meal a days. Those on ads. I don't like them. I don't I don't want to hear to it.

Just close the window a little bit. Eat early in the day and early in the day. You know, the caveman had it right. You know, when the, sun came up, they ate.

When the sun went down, they went to sleep. Choose foods that are low in the glycemic index, like under 35. So low sugary foods, my GPS and IRS. I'm a big believer in premium probiotics.

I can give you a plethora of supplements if you like. Heal the gut. Make sure, believe it or not, in your cooking environment, you cook at the right temperatures and light and the right times make the necessary lifestyle changes.

To reiterate exercise sleep critical lifestyle hack. When you sleep, your brain goes to about 40% of its size. It squeezes out its metabolic waste. So get good sleep.

7.5 to 9 hours of sleep is required. Reduce stress. Don't be like me. Don't be a type triple A, I admit to it. And you know what do brain training as we age?

You know, I'm 16. I'm playing with my third language now. The things that we do and should do to keep ourselves sharp. But remember, lifestyle is the driver for a health outcome.

Yeah. Not that so true. And, thanks for sharing. You know some of those tips. I know that it can become a little bit like a broken record in a certain way because this paradigm requires participation.

But ultimately it's one thing to reverse cognitive decline. It's another thing to maintain that reversal over years and years. And that's really what we're talking about.

Right? So to be clear, Alzheimer's, we've shown in the data through Bateson, through Dean Ornish, through Isaacson.

Exercise, Sleep, and Brain Health

At Mount Sinai, you can stop and reverse the symptomology of Alzheimer's if it's mild to moderate. So I mean, for me, that's illuminating. That's exciting.

I feel ebullient on my ability now to work with Alzheimer's patients because of that data. Yeah. All right. Well we've got into the lifestyle stuff. What would you say?

You know, some of your favorite supplement recommendations for, you know, for, for patients who you see on the way? Obviously, it's a, it's a personalized approach and depending on, you know, what is driving the pathology.

But, are there any other things that you think could be be useful and relevant across the board? Absolutely. I am actually going to give you the list from the record doctor Dale brightest.

I'm going to add some that I've added since then. We talked about methylated B vitamins, vitamin C, vitamin D, D3

with K2, of course vitamin E, resveratrol A, C, low L-carnitine, coenzyme Q10, omega three fatty acids, curcumin.

I probably would add saffron in there. Also, it's the new hot nutrient. It's an herb just like curcumin. Pro resolving mediators should take a second on pro resolving mediators because a lot of people, even though it's been out for ten years, really still haven't wrapped the head around what it does.

It allows for the resolution of inflammation. It's a fractionated omega three fish oil, so it allows for the homeostasis between the initiation or the resolution of inflammation.

If you cook like Rob and turn on one of the pilot lights, on your stove, on your oven, and you forget it, all the pilot lights will light. That's like what's happening inside your body and ultimately your house will go up.

But if as long as I have a pro resolving mediator, it will stop that fire from burning and shut the pilot lights off in your body. So it's really the only thing that I know that allows for true resolution of inflammation, magnesium, something like magnesium L three and eight has shown to decrease brain aging by 9 to 14 years, and some adds to it would be choline.

Choline comes in the yolk of an egg. So obviously I'm pro yolk and egg. Choline actually allows the decrease in neurodegeneration because it switches your micro glial cells, which are vacuum cleaners from an M1 to an M2 one.

And I just say it allows your micro glial cells to go from a pro-inflammatory state to an anti-inflammatory state. Zinc. There was a study with zinc of over 500,000 adults that showed a decrease Alzheimer's by 29 degrees.

I'm big on pre and probiotics and of course maybe the hot subject a hot topic of the now creatine. So creatine without question is a great choice. If you want to have a cognitive effect on creatine, you need ten grams or more.

The first five go to muscles. Muscles are really greedy in their need for creatine. You add another five and get to ten. You're going to start having some cognitive improvement.

By the way, women. You may have to dose higher than men even though you weigh less than us because you don't have the muscle storage where creatine is necessary.

It's shown to be quite effective for reducing the. And maybe the secret sauce of it all would be. I believe it's a Swiss Army knife of health. I use it a lot for God.

I use it a lot for all time. Doc, I think I missed it. What did you say was the Swiss Army knife? BPC 157 the PSA? I love it because without question it helps with the got you help you got you help. Your brain.

But it also has some great over medicinal factors. I think it's the peptide of choice. Interesting. Yeah. Really great. Great. Clues there and, appreciate that.

So give us a, give us a look at like, someone comes in geo clinic. They've got mild cognitive impairment. What would you do in order to have the highest chance of success?

Like what information are you looking for at the beginning? You know what? How are you getting people engaged into the lifestyle? How are you thinking about supplementation?

Like, what is, what is a journey look like if you were doing it, say, for someone, even in your own family?

Supplements and Targeted Support

That's a great question. So first off, I'm a big believer in testing and not guessing. So I would test for the genetics. Number two, I would test something called the ATN test A stands for I testing for amyloid T for tile tangles and for neural filament light.

This test can portend Alzheimer's 20 years in advance. So if you're a 40 year old, it can tell you, when you reach my age of 60 that you're going to have Alzheimer's.

That gives you 20 years to get on the slide and to try and stop it and reverse it. Some of the other things in the plan obviously go over the diet, but he would be five things that I would give anybody at 40 or a family member.

Number one, physical activities. As we said before, weightlifting three times a week, flexibility training, cardiovascular training, a quality nutrition strategy.

James, you and I are both going to eat non processed. All you know no ultra processed foods. But when we individualize it people can't see I'm six feet 185 pounds.

You're bigeye. You're 65. You have a lot more muscle mass than I do. You and I probably eat the same amount of calories. We have different, genetics. Not only that, but we have different ethnicities.

So therefore, you know, to individualize and personalize, it's going to be different. So everybody's going to get an individualized and personalized, diet.

And that's what you like to call what you refer to as precision medicine to supplements. You know, I gave you a plethora of supplements before if you have Alzheimer's.

I asked Dale brightest and he was on my podcast, and I said, Dale, the reality is that a lot of supplements, man. And he goes, it's Alzheimer's. So to avoid Alzheimer's, it's much more inexpensive because Alzheimer's, if you get it, is the most expensive health care disease with direct and indirect costs on the market today.

So the supplements I would recommend for overall life. Number one, omega three fatty acids. You take two grams of omega three fatty acids. You will ward off Alzheimer's for five extra years and live five years longer with a better health span i.e.

longevity number two would be D3 and if you add 2008 years of D3, you're going to add three years to your life. So a huge mega three years plus D3, essentially eight years.

But here's the secret sauce to it all. The every cell in your body has a receptor site for D3 and omega threes. So it tells you the master plan was to make sure you have exposure.

James lives on the West coast. I live on the east coast. There's snow outside my window right now. I'm sure it's sunny in 75 where you are so you can get some D3 by walking outside.

I got to go get these in a bottle. So those two I'm a big believer in a premium probiotic. Do not take a probiotic without a prebiotic. That's my belief.

A methylated multivitamin and probably five would be creatine as we talked before. Again, sleep hygiene, mental and social engagement. You know, one of the things James and I were talking about before I came on is, hey, you're on all these podcasts.

I love the engagement. I love to chat, I am Lucretius, I'm a New York City Jewish kid from the Bronx. I like to chat and I like to share and listen. And lastly, not just muscle mass, but to take that up one notch.

With all respect to Gabrielle, the line we want to talk about body composition. So I from six feet one, 85 and 13% body fat, I check all the boxes, but if I come back on part two next year and I'm 205 and 25% body fat with the same muscle, I just lost a big check.

So it's body composition. So again, reiterate not to be redundant. It's all about lifestyle. Yeah yeah I appreciate you sharing that. You know I'd like to get your thoughts on something if we just, you know, shooting back and forth here.

I mean you've been committed to, you know, this methodology of medicine for a long time. And I guess the question I wanted to ask you is, do you feel like maybe Alzheimer's is the disease that proves this methodology?

You know, and particularly because there's no drugs that work, you know, no drug is ever performed in a randomized controlled trial to reverse the cognitive decline that, you know.

And yet over here, we have something that does work, but it's almost like if it took a disease of this nature to showcase the difference between turning off a pathway and rebuilding back then, that works.

I think Alzheimer's is exemplary of exactly what's wrong with the combination of the medicines, if you will, because it's a full body failure. Obviously, lifestyle nutrition can positively affect genetics.

We call that epigenetics. And I think it's also showing cracks in different people's philosophy. And it's unfortunate that it's the sixth leading cause of death in America today.

Second leading cause of women in Australia, leading cause of women in the UK.

Testing, Prevention, and Hope for Reversal

And it's the most expensive condition that we're fighting in health care, as I said before, with direct and indirect causes. So again, it's an exemplar of what's gone wrong with our medical society.

And I am pro medical doctor without question. Yeah. Beautiful. Well, I appreciate you sharing that. You know, I guess the final question I want to ask you, because we haven't seen each other in person for a while.

I used to live in New York and not anymore. But, you know, in the last few years, you know, I've seen that you've really taken, you know, your message to the people. And.

Yeah, I just just love to hear from you. Like what you think has been the most resonant concept that you've been bringing out into the world. And, and, you know, why do you think it's time for why you think people are ready to hear it?

Well, I appreciate the, open mic in the forum. I really do appreciate it. I would have to say the biggest thing that people are looking for is who do they trust, what's right, and how do I implement that?

Easy on Monday morning. So one of the things that I try and do is I try and give content. I try not to be the only talking head. I'm always trying to do podcasts or summits like you try to get experts like you on it and try and edit it in such a way that people have something that's tangible.

You know, one of the biggest misconceptions about timers is that they think it's a memory loss is a normal part of aging. It's a great hidden layer to the idea of that's not the case.

It isn't. We don't have to have memory loss. Yes, we're going to die. Yes, we'll get some gray hair, I have some yes, we'll get some wrinkles. Yes. Our abs may not look as good at 60 as they did at 30 if we worked out at 30.

But the bottom line is we have to share the information. And I think that summits like this and social media give the real people the opportunity against the proverbial influencers, if you will.

Yeah. Well, look, I appreciate you stepping into it. And, you know, and I know that this comes from decades of experience, in treating patients and also, you know, going to conferences.

I remember I went for ten years in a row to the Integrated Health Symposium, and I think I saw you probably there every year. And, I haven't been for a number of years, but because I don't really, like, go to New York in the winter.

But I know that you're, you know, fully committed to continue learning. And yeah, I just want to share that it's not

easy to work out how to communicate these kind of complex and complicated concepts into sound bites, but I think you're doing an amazing job in doing it, and really grateful to have you and some of your community here learning, you know, through this process.

It's a very hopeful moment, I think, for medicine, because for the first time, maybe things that you've seen in your practice ten years ago, as a one off experience can now be replicated, randomized and organized to prove to the rest of the medicine that there is value in this methodology.

I concur, you know, I was talking to a buddy of mine, and it's when I graduated nearly 27 years ago that somebody would say that you're treating and helping people with neurodegenerative diseases, i.e., Alzheimer's.

I would say that's beyond my wildest dreams. And to have the ability to do that and make that indelible mark and see the profession on the precipice of a breakthrough, it's quite, it's quite exciting, to say the least.

Exciting. Well, look, doc, thanks so much for being part of the Reversing Alzheimer's Summit. Your, you know, joining in with a chorus of luminaries who are on the cutting edge of this topic.

And there's there's incredible, incredible sessions the rest of today. The rest of this week. You can catch the replay next weekend. Doc, thanks so much for being part of the summit.

And thanks so much, everyone for listening. And, where can where can people find out more about your work? Where can they follow you? Doctor Robert silverman.com is the website doctor Robert Silverman is social media.

I appreciate the opportunity. Just remember to carry your body. It's the only place you have to live now. Thanks so much for being part of it and thanks everyone for watching.

See you next time.