Dr. Keesha (00:01):

Welcome back to the Reverse Autoimmune Disease series, everybody. This is 3.0, The Autoimmune Brain. I'm so happy to bring back this course. All of you know and love Dr. Tom O'Bryan, who is considered a Sherlock Holmes for chronic disease and teaches that recognizing and addressing the underlying mechanisms that activate an immune response is the map to the highway toward better health. He holds teaching faculty positions with the Institute for Functional Medicine and the National University of Health Sciences. He has trained and certified tens of thousands of practitioners around the world in advanced understanding of the impact of wheat sensitivity and the development of individual autoimmune diseases. His most recent book, You Can Fix Your Brain: Just 1 Hour a Week to the Best Memory, Productivity, and Sleep You've Ever Had, was published through Rodale books in September of 2018 to global accolades. This bestseller offers a step-by-step approach to better cognitive function, from nutrition to environment, to toxicity, ultimately creating better longterm memory and a sharper mind. Welcome to the series Dr. Tom.

Dr. Tom (01:06):

Thank you so much. It's a pleasure to be with you.

Dr. Keesha (01:09):

Always a delight to talk to you and to pick your brain, so to speak. So whenever I say Autoimmune Brain, what comes to mind for you?

Dr. Tom (01:21):

Ah. Well, I don't believe there's any argument that all degenerative diseases—all diseases we get outside of an infection, and including infections actually—but all diseases that we get are inflammatory in nature. At the cellular level, the cell is always on fire. Is it a brain cell or a kidney cell? Is it gasoline or kerosene? But it's always a fighter. And when we talk about an autoimmune brain, we're talking about the mechanisms that cause inflammation in the brain. Excess inflammation. And when you have excess inflammation, you're killing off more brain cells than you're making. We have an entire new body every seven years. Every cell in our body regenerates, some cells are really quick, like the lining of the gut is every couple three days. Some cells are very slow like bone cells, but every cell regenerates. So when you have—there's always a little bit of inflammation in the brain. We're clearing out the old and the used up brain cells to make room for new brain cells. And the way that happens is we make antibodies to those brain tissue, like your pituitary or your hypophthalmus, and the antibodies get rid of the old and damaged cells. So there's room for new cells, make room for new cells. But when you have elevated levels of antibodies, you're killing off more cells than you're making. That's considered the inflammatory process, that there's fire in the brain. When you have that, that is the mechanism, the primary

mechanism for brain degenerative diseases. We know now one out of three elders in the US dies with Alzheimer's or another dementia. That's a horrible statistic. That means between you, Kesha, I, and the listener, one of the three of us is going to die with Alzheimer's and it ain't gonna be me.

Dr. Keesha (03:45):

[Laughing] That's not going to be me either. So let's make sure it's not you guys either. [Laughing]

Dr. Tom (03:48):

That's right. That's exactly right. That's why we're here. That's why we're here, right? So with that kind of a horrid statistic, what that suggests is that most of us, if not all of us currently have excess inflammation in the brain. We all know that Alzheimer's disease, as an example, is a decades long process. There are mechanisms going on causing excess inflammation for decades before you ever have a symptom of Alzheimer's.

Dr. Keesha (04:28):

I want everyone to really sort of like, get very mindful and present to this. Same with all autoimmune diseases, by the way. Right?

Dr. Tom (04:36):

That's right.

Dr. Keesha (04:36):

This has been going on for a lot longer before we find a symptom.

Dr. Tom (04:43):

That's exactly right. That's the whole basis of the discipline called predictive autoimmunity. We've talked about that before in past interviews, right? So, when new patients come to us, there's two tests that I do almost on every patient without exception, because it tells me so much. The first one is called the Wheat Zoomer because that test looks—it's the most sensitive marker for intestinal permeability, the leaky gut, and the most sensitive marker for a sensitivity to wheat. Wheat is a common fuel causing inflammation in the body for so many people. So we do the Wheat Zoomer and we do the Neural Zoomer Plus.

Dr. Keesha (05:36):

You're the one that turned me on to these two. We do these too, because of that. So thank you. They're amazing tests.

Dr. Tom (05:44):

Yeah. Now, when you've done the Neural Zoomer Plus on a patient, when you thought it was important to do that, how many times has it come back negative?

Dr. Keesha (05:55):

Of course, there are two ways to look at it. One is, is there an active antibody, right? And then there are others, is it in the background? So for example, I have HSV6. [Laughing] That's not active, but it's sitting in there. So, let's talk about that because people will usually have something in there. I haven't seen anyone that has a clean sheet that says nothing. Everything's negative.

Dr. Tom (06:25):

Well, there's ranges on those tests. There's a normal range where you have some antibodies to a virus, like you're talking about, or antibodies to your own tissue. That's a normal range. But when you have elevated antibodies, excessive amounts of antibodies, that means there's inflammation, that you're killing off more cells than you're making. A few of the markers on that test are like the marker that you just referred to. There's HSV1, Herpes Simplex 1, which is people that get cold sores. Last time I checked, and it was eight months ago or longer, there were 246 studies in PubMed on Herpes Simplex 1 and Alzheimer's. 246 studies that if you have excessive amounts of antibodies to HSV1 or HSV6 also, but for this discussion HSV1, then if a person unfortunately dies from Alzheimer's and they do an autopsy and they look at the plaque in the brain, it's loaded with antibodies to HSV1. Completely loaded, loaded. So some of the markers on that test are looking for virus indicators. Some of the markers look for bacterial indicators and some of the markers look at brain tissue indicators. But the takeaway message is if any of them are elevated, they're too high. There's fire in your brain. And when you have fire in the brain, you are always killing off brain cells more than you're making. So there's a normal level to have, but then there's elevated levels. If you have elevated levels, you've got a problem. I haven't seen two people—I remember I saw one person come back normal. I've probably done... I don't know, I haven't kept count, maybe a hundred of these tests in the last few years of the Neural Zoomer Plus that looks at 48 markers to your brain. And I've seen one normal.

Dr. Keesha (08:49):

I haven't seen any. I've done close to that. So yeah.

Dr. Tom (08:55):

Yeah. Which means that most of us have this problem going on right now that we don't know about because we don't feel bad.

Dr. Keesha (09:02):

Right.

Dr. Tom (09:02):

We think when we feel bad, it's time to do something about it. No. When you feel bad, when you can't remember where your car is parked in the parking lot, or where did I put my keys? You've killed off a lot of brain cells. You better put a lot of focus on this now because you're on that path of losing more brain cells than you're making and you've already lost too many, and your brain's not functioning properly. You want to slow down that loss. The way you begin is by understanding, do I have inflammation in my brain? If the answer is, yes, what do I do to turn it around? That's where your summits have come in with the interviews you've done of triggers that cause inflammation, other speakers I'm sure on this summit will talk about different triggers to calm down the inflammatory cascade in the brain. But your immune system has not gone haywire when you do this, your immune system is doing what it's designed to do. It's trying to protect you. So the question is, what is it trying to protect you from? And that's the—not the gateway—that's the map to getting a healthier functioning brain is to follow the leads, follow the map of where's the inflammation. "Oh, here's a trigger for inflammation. Here's another trigger. Here's another trigger." And you just slowly start reducing those triggers. You find in a few months, your brain is actually working better. "Oh, I remember that person's name. That's great. 'Cause a couple of months ago as she was walking down the street, I was going well, what's her name? What's her name? Come on. What's her name?" And that's not happening so much anymore. And you say, "Oh good."

Dr. Keesha (10:50):

Well, one of the triggers, it has a similar concept of what you were just talking about. It's elevated hemoglobin A1c. By the time you have an elevated hemoglobin A1c, by the time you're diagnosed with diabetes, type two diabetes, you've actually lost 25% of your beta cells of your pancreas already. Right? And that's one of the triggers for fire in the brain. That's just one.

Dr. Tom (11:16):

That's right.

Dr. Keesha (11:17):

Right?

Dr. Tom (11:17):

Right. Right. That's a good point.

Dr. Keesha (11:18):

So, we have to pay attention to this so early.

Dr. Tom (11:23):

Well, we have to look for the markers before we have the symptoms. And people aren't trained to do that. We think, if I don't have a problem, everything's perfect. If we treated our cars that way, if we didn't find—if we didn't follow the maintenance schedule of a car, it'll blow up on you eventually I think. It won't run very well at all, but we treat our bodies without an operator's manual. We don't think we have to tune it up or change the oil or make sure you're using the right transmission fluid or any of those kinds of things. We just don't think about that for our body and your observation about hemoglobin A1c, for those that don't know, that's the marker of how much sugar you've been eating over the last couple of months and how your body has been responding over a number of weeks, to a month, a couple of months. When it's high, it means you're getting way too much sugar in life. Whether it's sweets or it's too many carbohydrates, whatever it is, you can't argue with, "Hey, your A1c is high." This is a marker that sets you up to develop diabetes.

Dr. Keesha (12:35):

We're talking about fruits and kombucha and alcohol, right? Things that you don't usually attribute as sugar. Grains, things that—

Dr. Tom (12:45):

Champagne vinegarette dressing is loaded with sugar. That's why it tastes so good. The kombucha that people think is so healthy now, just read how many grams of sugar is in it.

Dr. Keesha (12:57):

That's why I threw that one out there. [Laughing]

Dr. Tom (13:00):

Right. The manufacturers have really come to, "If I make it, they will drink it."

Dr. Keesha (13:06):

And they are right!

Dr. Tom (13:08):

If I add enough sugar, they'll drink it and think it's healthy. So you want low sugar products, but the type two diabetes, we now know there's a type three diabetes. And that's when type two diabetes has been so bad affecting your brain, now you have lots of cognitive dysfunction and brain dysfunction kind of looks like Alzheimer's, but it's really type three diabetes. Because that high blood sugar is one of the gasolines on the fire, just like you're pointing out. If your A1c is high, you're throwing gasoline on the fire, not just in your brain, over your entire body, but certainly in the brain. So when you do an A1c, it gives you a reality check on how much sugar your body is able to metabolize and what it's not able to metabolize.

Dr. Keesha (14:04):

This is a really good–I call it the bumpers in a bowling lane—of keeping you in the middle so that you're not getting into the gutter of being able to see, because people will say, "Well, how much can I eat of this?" And so we have to actually test you as an individual to know that. And yeah, it's not going to be the same for every single person. It's going to be very, very individual.

Dr. Tom (14:31):

And we want to know, "How many cookies can I eat a day? How many pieces of pie? I love my pie. How many pieces of pie can I have in a week?" When the right question is, what are the foods that will completely reverse this imbalance in blood sugar?

Dr. Keesha (14:50):

Right.

Dr. Tom (14:50):

Not just stabilize me, but completely reverse it. We think that we can keep living the same lifeyle that's causing the boulder to go downhill and all right, you know, I'll cut down a little on my cookies or my kombucha or whatever it is—

Dr. Keesha (15:08):

—Or my grain-free granola, or my gluten free cauliflower straws out of the bag, things that people that are gluten free are chowing down on. Yeah.

Dr. Tom (15:22):

Right. A big talk these days that I do is called The Dangers of a Gluten Free Diet. I just published a paper on it recently. Gluten free products are not healthy. They're terrible. They're just white paste. There's nothing wrong with having gluten free pasta once every few weeks, who cares, but you can't have that stuff every day or every couple of days, you can't have a gluten free blueberry muffin or gluten free bread every day or every other day. "Really? Well, what am I going to eat for bread?" You're not going to eat bread. You're going to learn how to eat more vegetables, the colors of the rainbow. Because if your health is going down, this is a boulder going downhill and you can't substitute regular breads with gluten free bread because it's just white paste. It's not enriched, there's no fiber in it. It's just white paste and the momentum keeps you going down. So we need to taper that downward momentum and gradually turn it up, which means that you have to change the lifestyle that got you to where you are. Most people don't like to hear that. Well, I'm sorry. But when you realize this and you understand, "Okay, for the next year, I'm going to really apply these principles of an anti-inflammatory lifestyle. As much as I like my glass of wine every night..."—There's nothing wrong with some wine every once in a while, but not every night. There's nothing wrong with gluten free pasta once every couple of weeks, but not every week, not twice a week or three times a week, you know?

Dr. Keesha (17:06):

Red lentil pasta every three weeks or so is one of my treats, but it's not every night. Yeah.

Dr. Tom (17:14):

Yeah, exactly. For us too. My wife and I love gluten free pasta. And we live in Italy most of the time!

Dr. Keesha (17:20):

[Laughing] Yeah!

Dr. Tom (17:21):

Many of the restaurants will do gluten-free pastas and it's just delicious, but you can't have that very often. You recognize the next day when you're a little more tired than usual. "Oh yeah. My blood sugar is up today because of the yoyo effect from all that pasta I ate."

Dr. Keesha (17:38):

Yeah. So let's talk about some other gasoline in the fire in the brain, that's making it worse.

Dr. Tom (17:46):

Oh, sure.

Dr. Keesha (17:46):

So we mentioned blood sugar. We mentioned [inaudible].

Dr. Tom (17:50):

So what activates the inflammation in the brain? Well, we know the number one type of Alzheimer's—there's five types—the number one type is called Inhalation Alzheimer's. It's what your're breathing is going up your nose into your brain, causing the inflammation, and that often comes from mold. "Well, it's not a problem. I got a little mold on my shower curtain, but it's not too bad. I don't smell it!" But you're still breathing the spores in and they're going right up to your brain. You can't have mold in your environment. Period. None. Zero. "Well, what about the grout on the tiles? That used to be white grout, now it's black grout in some places, not every place..." Probably there's mold in there! You've got to check for this stuff. We know that the indoor air pollution is often much worse than outdoor air pollution. "Well, my house doesn't smell bad." You ever see the sunlight coming through the window and sometimes you can see the rays of the sun coming in and you see the dust in the air in the rays of the sun.

Dr. Keesha (19:00):

The dancing pollutant. [Laughing] In the ray of light.

Dr. Tom (19:06):

We're breathing that all day, every day. What is that particulate matter? It's the phthalates, which are the chemicals used in old plastic. It's the phthalates leaching out of the plastic blinds on the windows. It's the formaldehyde from the kitchen cabinets and the bathroom cabinets if they're not solid wood, but rather pressboard. They're soaked in formaldehyde. It's the flame retardant chemicals on your sofa and your carpet that out gas into the air. "Well, I can't smell anything." You don't have to smell it. They're minute amounts, minute amounts. It's the Scotchgard on your sofa, the stain resistance. It's all the chemicals in the air. It's the—

Dr. Keesha (19:55):

And on your clothing. I mean, what you're wearing too.

Dr. Tom (20:00):

On your clothing, of course. And it's the chemicals from the dishwasher detergent. Your dishwasher is not airtight. It's watertight, but it's not airtight. Those chemicals, when they're heated up to almost boiling levels, they create a steam that escapes and it's in the air and you're breathing it. That's why you only run a dishwasher when everybody's asleep at night. You don't have anybody in the kitchen or in the

living room walking around when the dishwasher is going, because the air is full of those chemicals. So, the air we breathe, when you learn about this stuff and you learn, for example, that NASA published studies that showed that houseplants, common everyday houseplants, two six inch houseplants in a 10 by 10, 100 square foot room absorbs over 70% of the toxins in the air. Two little six inch houseplants. "Well, I don't have a green thumb, they'll die in a month or a couple of months." So buy more! This is your family and they're sucking this stuff in, right?

Dr. Keesha (21:10):

I'm telling you, philodendrons, I can keep them alive. I have two in every room.

Dr. Tom (21:15):

Yeah.

Dr. Keesha (21:16):

They're easy. Yeah.

Dr. Tom (21:18):

Yeah. So there's so many simple things that you can do. That's why the subtitle on the cover of the book—the book is called You Can Fix Your Brain and the subtitle is Just 1 Hour a Week to the Best Memory, Productivity, and Sleep You've Ever Had because that's the secret to success. It's the only way I know people can be successful because it's so overwhelming when you learn about all this stuff. It's overwhelming, but you just allocate one hour a week, every Tuesday night after dinner, every Sunday after services, whenever it is, but every week, one hour to learn a little more and apply one more principle. When you discover that phthalates, the chemicals used to mold plastic, leach out of plastic storage containers and you've put your leftover chicken in a plastic storage container. You put it in the refrigerator, the next day that chicken has got phthalates in it. When you learn that, then one week you go back to the book and you look for the three URLs for glass storage containers and there's mileskimball.com and there's Amazon and whatever—I don't remember the third one. You go online, you say, "Oh, what was—Oh, I like those." And you order three round ones and two square ones and one for the pies. Pay with your credit card, it gets sent, it took an hour, but you're done for the week. Never again will you poison your family with these minute amount of toxins that you get from eating leftover foods stored in plastic storage containers. Now I have to segue, there is no evidence that the amount of phthalates that leach out of plastic storage containers is toxic to humans. There is no evidence whatsoever, and that's how the industry gets away with this crap. Excuse me. There is no evidence that the flame retardant chemicals that leach out of your bedsheets and your pillowcases and your blankets, that leech out for years, it doesn't matter how many times you wash them. There's no

evidence that the minor amount of chemicals are toxic to humans, but all of these things are accumulative in the body. Give me 15, 20 years now of a woman putting nail polish on her nails, when you read the studies that say that the phthalates in the nail polish leach into the bloodstream in three to five minutes, but the response from the industry, "There's no evidence that that's toxic to humans" and that's how they try to dismiss it. But this stuff is accumulative. Now give me 20, 30 years of applying nail polish, you got a problem. Here's an example of the problem and how it relates to the brain. They took 346 pregnant women in the eighth month of pregnancy, and they did urine tests to measure the amount of phthalates in their urine. That's these chemicals that mold plastic, and they categorize them into four categories. The lowest, the next one, the third, and the highest categories. They followed the children of these pregnancies and when the children turned seven years old, they did Wechsler IQ tests on them. The official IQ tests. Now there is not much in medicine that's all or every. This was every. Every child whose mother was in the highest category of phthalates in urine in pregnancy, and they had healthy pregnancies and healthy deliveries, but every child born of a mother in the highest quartile compared to the children born of mothers in the lowest quartile, every child in the highest quartile, their IQ was 7 points lower. 6.7 to 7.4 points lower than the kids with the lowest amount of phthalates, mom having the lowest amount. Now that doesn't mean anything to anybody until you realize that a 1 point difference in IQ is noticeable. A seven point difference is the difference between a child working really hard, getting straight As and a child working really hard, getting straight Cs. That child doesn't have a chance in hell— excuse me—of doing well. Then you just go on Google and type in phthalates and neuro genesis nerve growth. And here come the studies, how phthalates inhibit neurogenesis. "Now there is no evidence that the amount of phthalates that leach out of plastic storage container or out of fingernail polish is toxic to humans." But this stuff accumulates. Give me a mom 20 years putting nail polish on, living in a home that's got too many phthalates in the air, sitting on plastic furniture every day, plastic chairs, or working at a desk with a plastic chair, plastic keyboards, plastic computer. So much of our lives are based around plastic. That mom may have not had good detox capabilities so she absorbed a lot of these phthalates and they're still in her system. Now she's pregnant, hopefully healthy pregnancy and healthy delivery, but that baby's brain development never occurred to its potential because mom had too many phthalates. That's what we're up against today that no one in history has ever had to deal with before.

Dr. Keesha (27:01):

I want to interject with this and say also that the part about unable to detox, I test genetics in 100% of my patients also, and they all have autoimmune disease when they come to see me and I see a mismatch in phase one, phase two detoxification. Phase two is always more sluggish than phase one. So you can bet if you have Raynaud's, eczema, psoriasis, any of the things that are sort of like, "Oh, I didn't know that was autoimmune." You can bet you have this. 100% of my patients have a mismatch, that have autoimmunity.

Dr. Tom (27:35):

That's a great observation. Really good observation. And yes. Why is that? We have the exact same body as our ancestors, thousands of years ago, the same kidneys, the same bladder, the same immune system. What was our immune system in our ancestors designed to protect them from? Bugs, parasites, virus, mold, fungus, and bacteria. That was it!

Dr. Keesha (28:03):

Mainly plants. Yeah.

Dr. Tom (28:05):

That was it. Yeah. There was no mercury toxicity, red dye number 42, Bisphenol A.

Dr. Keesha (28:11):

EMS.

Dr. Tom (28:14):

Trichloroethylene.

Dr. Keesha (28:15):

Yeah. Yeah. EMS, asphalt, like—you could just keep going, right?

Dr. Tom (28:22):

Right. Now, in The Journal of Pediatrics, they published a policy statement, which means it came from the board of the American Academy of Pediatrics and they want every pediatrician in the world to read this policy statement. It said the Toxic Substances Control Act, which is the act in congress that regulates all chemical manufacture and import into the United States. They said the TSCA failed miserably to protect our children. Then in parentheses, and adults. Failed miserably. The numbers that they quoted in there was 27 trillion pounds of chemicals manufactured or imported in the United States every year. That number doesn't mean anything to us. What's 27 trillion? Until you divide it by 360 plus million people in the US and then divide it by 365 days, it comes out to 247 pounds of chemicals per person per day are manufactured or imported in the United States. 247 pounds. That's 5, 50 pound bags per person, every single day. Our immune systems have not developed to deal with any of this stuff. Our immune systems are designed to protect us from bugs, parasites, viruses, mold, fungus, and bacteria. So our detoxification systems are overwhelmed by all of the threats in our body. Many of you have heard every newborn child in America today has over 200 toxic chemicals in their bloodstream when they're

born. 'Cause mom's a walking sewage dump. Mom doesn't like to hear that, but she's a walking sewage dump. You want to have kids, first thing you do is detox before you get pregnant. Before you get pregnant.

Dr. Keesha (30:25):

Take a year before you conceive and clean up. Yeah.

Dr. Tom (30:30):

Yeah.

Dr. Keesha (30:30):

Because, as Dr. Thomas said in another summit, your breast milk is the most toxic substance on the planet.

Dr. Tom (30:36):

Yes. It's arguably still better than formula. Still has got more benefits, but it's not healthy if your body is not healthy, what you're producing is not healthy for the baby. There's too many inflammatory triggers that get in there that inhibit baby's brain growth and baby's brain development. They don't have a chance. They just don't even have a chance if mom is high in phthalates. So that's just one example of many, many examples.

Dr. Keesha (31:08):

Yeah. Many, many, many. So you talked about one kind of Alzheimer's: inhalation. I want to circle back because people that are tracking you are gonna say, what are the other four? [Laughing]

Dr. Tom (31:23):

Well, the other one that's really important and very, very common is type three diabetes. It's an imbalance in blood sugar. That's extremely common. Another one is hormone imbalances that set you up for inflammation in your brain? That's also fairly common. The other two are not so common, but those first three are ones that you have complete control over. Over the course of time, one hour a week you say, "All right, I'm going to get my hormones checked." And it comes back as a little bit of an imbalance and you're like low in progesterone or low in testosterone.

Dr. Keesha (32:02):

High in estrogen.

Dr. Tom (32:02):

[Inaudible] Yeah. Well, the high in estrogen is often because many of the chemicals that are being absorbed in our body are estrogenic, that they bind onto estrogen receptor sites and the labs can misread some of these chemicals as estrogens. So people can have estrogen dominance, which is because of these chemical accumulations and not that they have too much estrogen, but they have estrogen dominant symptoms. Many, many people are like that. Once again, we're back to detoxing. It's critically important that we all learn that detoxification is not an afterthought or one week a year. It needs to be a part of daily living now. Never before in history have we had to deal with this, but these chemicals at 247 pounds per person per day have accumulated in our environment. And they're just as dangerous as can be.

Dr. Keesha (33:06):

I take a detoxification supplement every single day at bedtime because the liver is trying to do its job at night when you go to sleep. Just to assist that phase two, phase one, to get them so that they will work together better. So what about APOE snip? 'Cause that one is one I think you can do something about too if you have a 4.

Dr. Tom (33:29):

Yeah, yeah. When people have—especially if they have a family history of cognitive decline or brain deterioration of any type, I always recommend doing the APOE test. Now we get one gene from our mother and one gene from our father and it can be a 2, a 3 or a 4.

Dr. Keesha (33:50):

And a 1! Did you know that?

Dr. Tom (33:53):

No!

Dr. Keesha (33:53):

I've been reading the research and people are starting to come up with this 1. When I delved into PedMed, it's unusual, but now I'm starting to see it. An APOE1.

Dr. Tom (34:06):

You know, that makes sense. That makes sense because why did they start with 2? APOE2.

Dr. Keesha (34:10):

Right!

Dr. Tom (34:10):

So there has to be.

Dr. Keesha (34:12):

Yeah. There's not enough known about it as far as risks and how to match diet to it. So like a 2 does really well on paleo and a 4 needs to be more vegetarian, no alcohol. So there's like a way of being able to match that to decrease symptomatology risk. Right?

Dr. Tom (34:32):

That's right.

Dr. Keesha (34:32):

Yeah. Yeah. So do you want to talk about that one a little bit?

Dr. Tom (34:38):

Well, the way I explain it to people is you can be a 22, a 23, a 24, a 33, a 34, or a 44. APOE4 is considered the Alzheimer's gene. If you live to 80, 50% of us—well, now it's more than that. This number is 8 or 9 years old, so now we know it's more than that. If you live to the age of 80, with this old numbers, 50% will develop Alzheimer's by the age of 80. If you have one 4, so you're 24 or 34, 90% develop Alzheimer's by the age of 80. If you have two 4s, you're a 44, 90% develop Alzheimer's by the age of 65. So this is the Alzheimer's gene. When people come back and they've got a 4—one or two 4s—I'll look at them and I'll say, "We have to sit down and talk. I have to read to you from the book." And it's the book of life and say, "Like your family history, you carry a gene that makes you vulnerable to accelerated brain deterioration. That doesn't mean that you're going to get accelerated brain deterioration. It means you're vulnerable to getting accelerated brain deterioration." So the key here is going to be don't turn the gene on, avoid turning the gene on. "Well, how do I avoid turning the gene on?" The way you avoid turning the gene on is an anti inflammatory lifestyle because it's inflammatory things we do that in an APOE4 has a much more profound effect. So you might eat a sugar doughnut once in a while, and if you're an APOE22 or a 33, it doesn't knock your blood sugar too far out of bounds. But if you're a 24, 34, you get knocked out much more and you're just more sensitive. You don't have as much threshold for insult. So if you carry a 4, the next thing we do—or usually we've already done this, is we do the Neural Zoomer Plus. The measure to see, of the 48 markers of inflammation in your brain, how many are elevated right now? This is like looking at the temperature gauge, the gauges on a dashboard of a sports

car that's got a bunch of gauges there, right? And when you look at these antibodies, elevated, elevated, elevated, normal, normal, elevated, elevated, elevated, you see how much inflammation is going on in your brain right now. Now that's not good, but it's the starting point. You now have a starting point. Now you apply the principles of an anti inflammatory lifestyle. Whether it's clean up the air, stabilize your blood sugar, balance your hormones, get the toxic metals out, identify the food sensitivities, whatever the things are you need to do. Then you go back in 6 months and you recheck again. The first time you had 17 of these markers out of balance. Now you've got 4 and the doctor should say, "This is great. Look how good you're doing. Now we have to tweak it a little bit or keep doing what you're doing. Absolutely. But there's still a 4 here." So you've got the markers, doesn't matter how you feel. You've got the markers that in the beginning are saying, "Your brain is on fire. You're killing off a lot of brain cells right now." And you've dropped that from 17 to 4. In this example, in 6 months, you're on the right track. That means within a year, there should be no markers of inflammation in your brain.

Dr. Keesha (38:40):

And here is what you can expect. This is what I see when I—especially when I get a 44, I actually kind of celebrate when I see somebody that has a 44, because I say, "You above everybody are more responsive to also the fix. You're more sensitive to the trigger, but you're also more responsive to the fix."

Dr. Tom (39:01):

Good point.

Dr. Keesha (39:01):

People lose extra weight. They feel better. They have more energy. I mean, they just really respond. A year later they say, "Wow, I didn't even know that I could live a life that looked like this that looks out with clear windows. And my brain works. I have energy and I wake up rested." So it's really quite lovely. My husband is a 34, and his mom has Alzheimer's, so I'm very in tune with this. [Laughing]

Dr. Tom (39:37):

Of course, of course.

Dr. Keesha (39:38):

Yeah.

Dr. Tom (39:39):

And these patients, they always say, "Doc, you saved my life", or, "You turned my life around." It's—Well, you did it! We did it together, but look how you are now. Way to—high five—way to go. Way to go.

Dr. Keesha (39:52):

Nice!

Dr. Tom (39:52):

Keep it up. Don't screw up! Don't screw up because you will crash faster than anybody else will crash.

Dr. Keesha (40:01):

This is the one that has high cholesterol, that [inaudible] all those years ago came out and said, "That's bad." I think it's 'cause he had a bunch of APOE4 people in his clinic that he was testing. Right? So they respond to the lowering of fat in the diet and cholesterol because that's part of the issue is difficulty metabolizing that stuff. So you are the one that—You can draw your cholesterol down. Statins are poison for you if you're an APOE4.

Dr. Tom (40:32):

Yeah.

Dr. Keesha (40:33):

Yeah.

Dr. Tom (40:33):

Yeah. Agreed. It's really great information for a person to find out how inflamed they are, what their APOE is and you know, it's easy to get depressed about it. "Oh my God. I've got this and this..." Yeah, you do. But listen, you're finding it now while you still have a brain. Your brain is [Inaudible]

Dr. Keesha (40:52):

Information is power. Yeah.

Dr. Tom (40:55):

It can be power. Information can be power if you use it. Now let's get to work here. Here's how you're going to turn it around.

Dr. Keesha (41:04):

I love that you're saying all these things because I always—I get called a little bit of a hard ass for saying the same things you're saying. [Laughing] I'm really happy to hear them coming out of your mouth. [Laughing]

Dr. Tom (41:19):

Yeah. And I tell doctors onstage all the time when I'm lecturing, I say, "You aren't there to be their friend."

Dr. Keesha (41:25):

Right.

Dr. Tom (41:26):

"You're not there to be their friend. If you don't tell them the truth clearly so they understand you then shame on you. You may not live it yourself and you may be carrying an extra 20 pounds around your midsection. That's your call, but you need to tell them straight what you know the science is. And shame on you if you don't." There's always silence in the room and some docs do this. Some go... And they're the ones that are usually packing an extra 20, 30, 40 pounds. It's not intended to make them wrong, but it's intended to wake them up. They've got a job to do. They took an oath, right?

Dr. Keesha (42:01):

The next time I'm on stage at IFM teaching, I'm going to proudly bring—you just inspired me. One year, I got a t-shirt for my birthday that says "buzzkill" on the front of it. I'm going to show that and say, "This is what you can expect and be proud of it."

Dr. Tom (42:17):

Yeah.

Dr. Keesha (42:17):

Yeah, yeah.

Dr. Tom (42:19):

Exactly.

Dr. Keesha (42:22):

You want to be the buzzkill on the cultural expectation that I can put diesel fuel in my unleaded gasoline car. Right? It's not going to work. So you have to be the one to point out the obvious. Look, this testing is showing, pointing to what is the correct kind of fuel for you. Then if you deviate from that it's exactly like putting the wrong kind of fuel in your tank of your car. Why would you do such a thing?

Dr. Tom (42:52):

That's a good analogy. It's a good analogy. When would you ever put diesel fuel in an unleaded car? When would you do that? "Well, I can have a little once in a while." Well, can you put a little diesel fuel in an unleaded car once in awhile and expect there's no consequences?

Dr. Keesha (43:08):

"Well, I was at the airport and there was nothing to eat." Well, no, you actually knew that you were going to go to the airport, which means you had stuff in your refrigerator that you could prepare to take with you to the airport. Right?

Dr. Tom (43:20):

Right. Right. Or, what I often say is, were you crawling on the floor about to die from starvation at the airport? Are you about to die? "Roseanne, Roseanne, I'm going to die. I feel like I'm going to die. I need that sugar donut or I'm going to die." [Laughing]

Dr. Keesha (43:40):

[Laughing] Exactly. Most of us can go a little while without eating.

Dr. Tom (43:46):

Right. You'll survive, drink an extra bottle of water. You'll be fine.

Dr. Keesha (43:50):

Right. Yeah. Well, Dr. Tom, is there anything else that you would like to add to this discussion that we haven't talked about? We'll point to your book. So will you tell a little bit about that? Because one of the things that you are generously giving to our audience is a sneak peek to some of the materials around your book.

Dr. Tom (44:08):

Yeah. The book is called You Can Fix Your Brain: Just 1 Hour a Week to the Best Memory, Productivity, and Sleep You've Ever Had And number one in seven categories on Amazon for brain and nervous system. I'm really—

Dr. Keesha (44:21):

Only because it's good. Very, very good.

Dr. Tom (44:26):

[Inaudible] Thank you! There was lots of pearls and lots of tips in there, but people are so overwhelmed by it. You know, there's so much information in there. That's why I say one hour a week, 'cause you will be overwhelmed. I put together a series and it's 87 videos. Some of them are three minutes long, some of them are eight minutes long on one topic like house plants in a room. What are the houseplants? Well, here you go. This, this, this, this. Or dishwashers, the toxic kitchen and how do you detox your kitchen? Turn the dishwasher on at night. Here's the recipe to make your own hand soap at the kitchen sink. Here's a recipe to make your own dish washing soap for hand washing dishes at the kitchen sink. Just simple things like that. So I did a bunch of 87 videos on that and we've got like a packet that you can take a look. Here's a bunch of them just to watch and see if you like them. It's at www.thedoctor.com/freemybrain

Dr. Keesha (45:35):

You have a link here too for it.

Dr. Tom (45:37):

Oh, good. Yeah. And you just watch them and if you like them, great, great. Then order the rest of the videos. If not, hopefully you picked up a point or two that will benefit you on your journey. I guess I would close with this example. This to me is really a good example. 1986, a microbiologist gastroenterologist in Australia writes a paper and says, "You know, I think that sometimes ulcers are caused by a bacteria." And his peers thought, "What are you? A nutcase? Everybody knows that ulcers are caused by too much acid. And you have to give antacids. Everybody knows that. It's one of the top 10 medications worldwide, billions of dollars in sales every year. Everybody knows that. Of course the pharmaceuticals, we always market on television, radio. That's what you do for heartburn. Everybody knows that." So he was ostracized. So what does he do? He does an endoscopy. He takes a tube with a little camera on it, puts it down his throat into his stomach, takes a picture of the healthy pink tissue of his stomach. Then he drinks a beaker of a bacteria called Helicobacter pylori, H. pylori, waits three days until he's as sick as can be. Does another endoscopy, takes a picture of the ulcers that are forming in his stomach.

Dr. Keesha (47:11):

I remember those.

Dr. Tom (47:13):

Then he takes the antibiotics to kill the bacteria. Waits about a week until he feels normal again. Does another endoscopy and takes pictures of the healing of the ulcers in the stomach. Then he publishes it. Then everybody knows he's a nutcase, but he proved that sometimes ulcers are caused by a bacterial infection in the stomach. The world health organization thought that was so important. They sent that paper to every healthcare group, every medical group in the world and said, "Send this out to your members." Why? Because at the time stomach cancer was the number one cancer in the world. It's caused by Helicobacter pylori infections most of the time. If doctors look for Helicobacter infections with upset stomach and dyspepsia and heartburn, they could likely prevent the development of stomach cancer. Well, Dr. Marshall was still considered a fringe guy. He didn't care. 21 years later, he wins the Nobel prize in physiology and in the award the Nobel committee said—and this is an exact quote—"Who with tenacity and a prepared mind, challenged prevailing dogma." Now all of us have a dogma by which we live our lives. We all do. Opinions, operating principles, the dogma. But if you're not happy with the results that you currently have, you have to change the dogma. You have to change the way you live your life. So what's tenacity? One hour a week. Every week. It could be one hour twice a week if you've got the bandwidth, but you don't need to be overwhelmed. You just take it at a pace that you can take it one hour a week and you prepare your mind. You watch this summit again and again, you read my books. You read Dr. Keesha's books, and you just prepare your mind. You just pick one topic one hour a week, you dial it down. Next week, you pick a new topic, you dial it down. Six months from now, your friends who haven't seen you in a while say, "You look like a million bucks, you look so much younger." I am younger! I am younger because you've been allocating your attention to changing the dogma, changing the lifestyle of how you live your life to this point.

Dr. Keesha (49:47):

I would like to say something to this. So there was a time, years and years ago, that I sat in an audience and watch Dr. Tom case the stage talking to medical providers and saying, "If you're not spending one hour a week with the research, then you are failing everybody." And I remember sitting there going, "Whoa, do I?" And then committing to that. It's much more than one. And I have—my patients will say, "You are so smart. How do you know this? Why does my regular doctor not tell me this? How are you always up with everything?" And I just want to say thank you because it's because of you.

Dr. Tom (50:32):

Thank you, Keesha.

Dr. Keesha (50:33):

Yeah.

Dr. Tom (50:33):

Thank you so much.

Dr. Keesha (50:34):

I just want to say thank you for mentoring me in a way that you probably didn't even know. It was you up there saying, "You people need to spend at least an hour a week." So thank you.

Dr. Tom (50:46):

Thank you. Thank you so much.

Dr. Keesha (50:48):

All right, everybody on that note, see if you can find someone that you can show gratitude to that has also mentored you and appreciate them until next time. Be well.