Introduction and guest welcome

Not necessarily, I don't know. Can you change the genes? I don't know, no, I can't do that either. And the genes turn on and off by themselves. And all of a sudden you realize, oh my God, that information makes me a victim of my heredity.

The genes control me, I don't control them. And that's where people start to get the Bleep. I can get the cancer Alzheimer's running. These are genes and they come into me and I'm just a victim.

This is doctor talks. Welcome, everybody, to the next episode of Reversing Inflammation Summit Body and mind. Longevity medicine. And I am so thrilled today to have with us a guest that I've read his Biology of Belief many years ago and was tremendously struck by that.

And Bruce Lipton is our guest. He's a cell biologist and an internationally recognized leader in bridging science and spirit. And I just mentioned his bestselling book, The Biology of Belief, and he has a few other books as well.

I want to give a brief shout out to my wife, to our mutual friends, son and Alan Dell, otherwise known as Doctor and Mrs. Future, have a radio show up in Santa Cruz, where Bruce spends half of the year and so, Bruce, welcome to our program.

Steve and Robert hiding out there in the dark someplace, Robert Lufkin, MD. And you and I and all of us here sitting are here have a wonderful mission, which I'm so happy you invited me to participate in.

And that is to empower our listeners to recognize that you're not victims of the world. You're creators of this world, and that if you understand some aspects of that creation, it can enhance your life profoundly.

So thank you guys for letting me join you. And play in this room of empowerment. Great, great. Let's begin by, you know, one of the early comments in your book, you talked about early in your career, some of your moments that led you into this, into this field.

Can you share some of that with our audience very quickly? Basically, I was teaching students, especially medical students, the concept of something called genetic determinism.

That was a belief at the time that said, genes control the character of your life. And I have to emphasize, because we programed the public to believe, about this power of the genes.

And I say, well, have genes control your life as far as you know. Did you pick the ginger came with I go? No, not necessarily, I don't know, can you change the genes?

If you don't like them, I go, no, no, I can't do that either. And then I add on top and the genes turn on and off by themselves. And all of a sudden you realize, oh, my God, that information makes me a victim of my heredity.

The genes control me, I don't control them. And that's where people start to get the belief, oh my God, there's cancer running in my family. I can get the cancer, Alzheimer's, running diabetes.

These are genes. And they come into me and I'm just a victim. That's what we were programing.

Genes, heredity, and stem cell experiments

But my research on stem cells, which are embryonic cells in your body and well, let's give a reason why stem cells so people understand a human body is made out of about 50 trillion cells.

And the cells are the living entity. Me, I'm a community. Bruce is the name for a community of 50 trillion cells. I look like an entity, a single entity.

But if you had a microscope, you go, now, this got 50 trillion citizens in there. And I go, so the significance of all this is that these 50 trillion cells, so many of them die very quickly.

Turnovers, very quick red blood cells, turnover very quickly. The, the skin cells are turning over very fast and we're losing cells and we're losing, I mean, the entire digestive tract from mouth to anus.

The trillions of cells are replaced every three days and everything goes well. Wait a minute. I mean, they're replaced. I said, well, they're dying. We're losing cells by the millions every minute.

Just millions of cells just popped off. I go, wow, this is scary. I go, why? Because if I can't replace millions of cells and I don't have a very long life and run them, I go, no, you don't.

But we have in our community what are called stem cells, which the original name was embryonic cells. But once you were born, we had to change the name.

You're not an embryo. So now we call them stem cells. They're embryonic cells that replace all the ones that are dying. Do you have embryonic stem cells in your body?

Well, if you're watching this program, then yes, you do, because, you wouldn't have been alive long enough to watch this. So all of us have stem cells like I.

So what I said, well, I was cloning stem cells. That just means I take one stem cell. I'll put it in a dish by itself. In a culture dish, in a device every 10 or 12 hours.

So I start with one cell, then there's two, then there's four, eight, 16 doubling. At the end of the week, I have 30,000 cells in the petri dish. Recognize one important fact all cells came from the same single parent.

So that meant all 30,000 cells are genetically identical. Well, I split the cells up into three petri dishes. So three dishes. But they all have genetically identical cells.

And I feed cells in a tissue dish, something we call culture medium that we make in the lab. I go, but what is culture medium? This is going to come back and get us in a minute.

Culture medium is the laboratory version of blood, I guess. So what does that mean? I say cells grow in an environment the same in the body where the blood is environment.

And so I make the tissue culture medium in the lab by mixing two components together. But I can change some of the composition, which in my experiment I made three different versions of culture medium.

Culture medium is environment in which the cells are living. So I have three different environments. I say, so what? I said, well and cultured dish one with environment A the cells for muscle and culture dish two with environment B the cells form bone and in culture dish three with environment C the cells form fat cells.

There's one profound conclusion. And how does this what controls the fate of the cells? The answers they were all genetically identical. The only thing that was different was the environment.

And all of a sudden, back in 1967, I'm doing this research while teaching genes control life in the classroom, in the laboratory, it's like, no, the cells are telling me no, it's the environment that is controlling the genes.

I go, oh, wow, it's profoundly different, isn't it? I say, what's the what's the difference? I said, in the classroom, genetic determinism is teaching.

People are victims of their heredity. In the laboratory, the cells are telling me, change the environment, you change the genetics. I go, wait a minute, I control the environment.

I go, yeah, and then all of a sudden I said, well, then I'm not a victim of my genes. It's. I control the environment. I'm controlling their fate. I go, yeah, so.

And all of a sudden, then you're no longer a victim. You're a master of your genetics. Well, this is what I found back in 1967. Of course, all my colleagues looked at me as I am the loony bin crazy guy because we all know that genes control live, except for Lipton.

And, they were trying to tell me I was crazy, which I for a little period of time. To be honest, I thought maybe I am crazy why I believed in this stuff so much and nobody else in the world was believing in it.

So I thought, okay, I'm the crazy guy because crazy people, they believe stuff they think is real, but they're crazy. And I thought I was crazy. And it was interesting because at my first seminar on this topic, I, I left the university.

Let's go back for a reason. My research conflicted with what I was teaching, and I thought, I have to teach according to the curriculum. Curriculum says I have to teach change, control life.

I know this is not true. And I realized I can't go back in the classroom because I'll be teaching the wrong thing. My option was I left a university and but I wanted to come back, get a scientific opinion about my new research.

I was so excited because I started to understand how it worked. And it had to do not with the genes, but with the skin of the cell. The membrane of the cell was the brain of the cell.

Just for people to understand the skin of the human is the source of the brain of the humans, same as the skin of the cell is the brain of the cell. Two is what your perspective is on how and why we age and on longevity.

Okay. Well, the first thing my research revealed that the genes did not control those processes. And so people think genes control longevity. No, they don't they don't control longevity.

I say one of the aspects that controls longevity is associated with our DNA. I go, what's that? The end of the DNA is, remember, at the end of a DNA is a double helix.

And if the helix at the end opens up so that it starts to spread apart, then enzymes will go in there and destroy the rest of the DNA. So you don't want the ends of the DNA helix to fall apart.

Remember, the old days were shoelaces and they had a little plastic cap called an Agilent. They got a name tagline and that holds the fibers together because if the plastic cap comes off, then the fibers fray, and then you try to catch it through the hole.

That's when we have a problem in Jim. Okay? But what happens is to prevent our DNA from the DNA from falling apart at the end. There are extensions of the DNA.

They don't they're not genes. It's just DNA molecules that don't code for anything. It's just like extra track. Okay? And I go, relevance of this track is called a telomere.

I go, what's the telomeres is extension of the DNA. And I go, why do you need an extension of DNA? An answer is this imagine my arm is DNA. There's an enzyme that I call DNA polymerase that moves down the track like a train.

And as it moves down, it leaves behind a copy of the DNA. It just went over. But I said, well, what happens when it gets to the end of the track? I say, well, guess what?

It cannot copy the part that it's on because the copy it has to pass over it. Whatever passes over, it's off. So I said, then what happens is when it gets to the end, it can't copy it.

So the end is now short of the DNA is a little shorter. I say the next time the copying DNA does the same thing comes to the end. Can't copy the end. Now the DNA is a little shorter.

Every time you copy it, it gets a little shorter. The telomere. There's a point. If you run out of telomere, the next time you copy it, you're cutting into the genes.

And I go, what's the consequence? And that is aging. Depression, and disease starts when we start cutting into the gene program. Okay. So the relevance is very clear.

And that is this is that telomeres allow me to copy the DNA without cutting off the end. But that led people to believe. Well, then our life is determined by the length of the telomere.

And this is back in the 60s. Leonard Hayflick, a scientist, tried to calculate how much length, how much you lose each time. And if you lose this much each time, how much lifespan can we have before the cells can't copy again?

About 90 years ago. Oh, wasn't that good? It's coincidence we live 90 years and it should be this way. So everybody thought human lifespan about 90 years. But a woman, Elizabeth Blackburn, discovered an enzyme called.

When you make an enzyme out of a protein, you had AC. Hey. So telomere is to live. It's called telomerase. Telomerase is an enzyme that makes telomeres.

I said, what do you mean? If you activate this enzyme, you can increase the length. I said, what if increase the length and what are you doing extending the lifespan.

Because now the cells can keep dividing before they reach the end where they start cutting in the gene. So the length of the telomere is proportional to our lifespan.

But I say we came with the telomere length. But we can increase the telomere length with the enzyme.

Telomeres, longevity, and the effects of stress

That's where the problem comes because I say were the conditions where the enzyme works and their conditions were the enzyme does not work. I go, well, if it doesn't work, then I can't extend the telomere and my life is shorter.

If I can extend it, then I can keep going. On and on I go, yeah. And I say, so what are the conditions? And it turns out this is simply the condition.

How much you want to live. Like, what do you mean? As I go, it turns out people whose lives are not supported, where they feel stressed out all the time, they feel like people who have been abused do.

They wake up and say, hey, another day to get abused? No, no. They wake up going, oh my God, we got to go do this again. PTSD, abuse, very bad nutrition.

It says I'm not supporting the system. Lack of love. Yeah. Because love is enhances our vitality. But when you have love, you live longer. When you don't have love, you don't have as much vitality anymore.

Okay? So changes our physiology. Well, that's where the physiology turns back into the genetics at this point. Okay. And let me just say this. One of the most important things for extending our life is being in service.

What does that mean. It means you have something to do. And your feedback is if I'm in service, I have to stay here longer. I have a job I am working.

This is why people, when they retire frequently, just go down off the edge. Why they're telling themselves, I'm done. I said, don't do that because the biology will take that consciousness and manifest it with a consciousness is life is

struggle.

Life is hard. Life is abusive. There's no love. I have nothing to do. You are unconsciously telling yourself, I don't need any more life. That's what you're saying, right?

These things inactivate the enzyme that makes it telomere, and it's the opposite things that activate it. Like what? Well, first of all, enjoying life.

If you enjoy life, what you're saying is, I want more life. Okay, I have gratitude, I have happiness, I go, yeah, that means, hey, let's keep doing it.

This is working. Okay. As I said, a diet is really important because that means we're taking care of the machine, which means I'm making an effort to keep it working beautifully.

So let's keep it working. Yeah. I just being in love. Being in love? Yeah, I just did in in line with what you're saying. I just published a article in Psychology Today.

The title is purpose can this be the ultimate in use it or lose it? Well, the answer is from me without reading it. The answer to me is yes. Yes, because purpose.

And that was the one I said about service. If I have something to do, I'm not ready to finish. And basically that's a feedback system. I said, well, if I'm not ready to finish, I'm not ready to end.

If I'm not ready, then I got to make more telomere. So the enzymes work with hope and gratitude. Something to look forward to. Love means, oh, I love my life.

I want to enjoy this. Yeah. More life. Service. These are the things. So all of a sudden this says that our longevity is not determined at that moment.

Our longevity is based on how well we can keep supporting the telomeres for growing, which then is a reflection of what we think about our lives and how much we want our lives, or how much we're tired of our lives, because it's not giving us any joy or happiness or something like that.

So all of a sudden I say, well then, well guess what? How long should we live? It is now estimated that the lifespan of a human minimum 150 years. I go 150 years.

We're sure as hell not getting there. I got well, there's other reason too. So we have. What reason want do you want to live 150 years? A lot of people whose life or struggle say, God, I don't even want to do this anymore.

So 150 is way out of line. But there's another factor. And this comes into, yours and Robert's work and that other factor is simply this is that eating food is shortening our life.

Eating food I got. Yeah. You know why? When you burn fuel, you also create toxic byproducts. So let's say in the car, I burn the gasoline. I said, well, then don't breathe the exhaust.

The exhaust is a toxic byproduct and I go eating food has a toxic byproduct called free radicals. Free radicals are charged ions that can punch holes in the cell.

I wonder punch holes so you can kill the cells. So the more food you eat, the more free radicals you make. The more free radicals, the more cells you kill.

And guess what? There comes a point where, you're killing a lot of cells because the amount of food is way beyond what humans need in a laboratory. What they found out was this, let's say rats.

When I grew rats in the lab, we had a box, and then we had a little grill over the box, and then we put all the rat

pellets so that they could eat. So we didn't give a here's your breakfast palette and here's your dinner pellet.

No. Put all the pellets in there. Let me what they want. They found out that actually if they stop giving them that much food but actually gave them just a subsistence amount, just necessary, they doubled the lifespan of the animals.

And I said, well, did that just work with rats? I said, no, it worked with dogs, it worked with monkeys. And now we have information. It also works with humans.

We are eating way too much food. And the toxic byproduct of our diet is, in the end, killing us. And we should be eating subsistence, but we're programed to eat.

Yes, when you were a kid, eat breakfast. That's the most important meal of the day and lunch is a great place for a social hang out. Need some food and dinner is what you're waiting for when you came home.

And we focus on this and I go, we don't need much food. And yet now guess what? We supersize it. And I go, jeez, now, now you're killing us even faster.

Supersized meal. The idea was to go the other way subsistence, take it down, reduce it down. And the diet that we eat is terrible. It's terrible because it has too many carbohydrates in it.

Carbohydrates were not a mainstay of early humans. They were the a consequence of agriculture. We never ate that many carbs. Carbs are pretty much damn destructive at some point.

The amount that we eat. Yes. Steve Bruce, question. I saw a study that said it's not only the reduction in overall intake, but it's the distribution of how you eat it so that if you have periods of non eating that works better than if you distribute 60% diet throughout the day.

Is that you're unsure? Yeah, yeah. Apparently this is a very important part of the whole program is fasting. Okay. And again I said why. I said look human physiology did not develop this year 70 allergies a million years ago.

I go, well, what does that mean? I said, well, there was no farming and you could get whatever food you could find. And so that's why they didn't have lots of they didn't sit down with a Thanksgiving dinner anywhere.

They were lucky to get some berries and something they could put in their face. So we grew up in a world with a very small dietary support. And then once agriculture came in, then food was unlimited.

And the system. Now remember, before agriculture, if you could find food, you would eat it anywhere. Why? Because you never know when you're going to find it again.

So there was the idea was if food was available, eat it because you don't know if you're going to get another meal. In today's world, we're still driven by the same fact, but the food is available, you know, all day long, all year long.

And it's like, well, then the drivers were still eating, but there was no need now because there was no shortage of the food like it was when we created our original physiology.

So this is a overcut. We're killing ourselves on that. Okay. So that becomes another important part of the longevity is how much food we're eating, how much our telomeres are growing and things like this.

So the important understanding is we are shortening our lifespan with our behavior, not our genetics. And I say because if it was genetics, then we're the victim.

But I said, no, this is environment. We're the creators. Yeah. And if we understand this, then what we're saying is to save ourselves and the planet, right, is to cut down the food intake and extend your life.

And when people start to do this, guess what? All the diseases that we are really facing start to all disappear. People think diseases are due to genes.

A simple fact less than 1% of disease is connected to genes. I go, where is the disease coming from? I go 90% of diseases going from stress. And I say that's the kind of the stress can shorten your life.

That's where the problem comes from. And stress is debilitating. If I have an option, do I have an option not I'd like it out. Then I'll say, yeah, I got that, I got option Steve talk here.

Right here. Yes, yes. Okay. The point I want to bring this up is stress is a protection mechanism. It's to protect us from something that threatens us.

And it could be anything. Could be a saber tooth tiger. Could be, a bill from the insurance company. All these things threaten us at some level, and we start to stress, and I say, well, what is stress?

So it gets you ready to run, fight or flight. That's what stresses get away from this, tiger. Get away from that insurance company run. So the concept of being stress causes us to release stress hormones into the body.

I go, yes it does. I say, what's the significance of stress hormones? And this is what it's all about. Simply this to redistribute the energy of the body into the arms and legs so you could escape, fight or flight the stress that's pursuing you.

So I said, well, how do you get the energy into the arms and legs? I go, well, first of all, blood is the source of the energy. So the more blood in the arms and legs, the more energy you have to use those to escape the threat.

So I said, well, how do you get more blood into the arms and legs? I go, this is a write out of a physiology book, Steven. You know, this one says when stress hormones are released into the body, the blood is preferentially sent to the arms and legs.

I go, what's that? I say the blood is preferentially going to the arms and legs and stress, because that's what I need to run. So I said, big question, where was the blood before?

It was preferentially in the arms and legs. I go, it's in the God. I said, what's the function of the gut? Maintenance of the body, repairing the body, assimilating the food, getting rid of the waste stuff, filtering all of the systems.

That's the stuff that keeps us healthy and long life. And I go, so wait a minute, stresses in my life. Saber tooth tigers come and go. What stress hormones?

Come on my body, I said, what are they going to do? They cause the blood vessels in the gut to squeeze shut, I go. Why? Because that pushes the blood from the gut to the arms and legs so I could run.

I say so. Oh, first thing of stress, you shut down the maintenance of the body. Okay? I go, oh, that's that's dangerous right there. But then I say there's a second source of where energy is being used, and you don't want it to be used when you're being chased by that tiger.

I go, what? The immune system. The immune system uses tremendous amount of energy, because if you've ever been sick, you may not have even had the energy to get out of the bed.

So I said, well, what if you're being chased by a saber toothed tiger and you got a bacterial infection? I go, how do you want to distribute the energy?

Well, I can give you the answer. Simple. The hell with the infection. If the tiger catches you, that infection is not a problem for you anymore. So basically I said, well, then I don't need the immune system.

If I'm being chased by the tiger, I say, absolutely not, I said, and this is the part that comes to what the point I'm

trying to make, after all those words, is when stress hormones are released into the body, they shut down the immune system to conserve energy, to be used to run away from the threat.

So I said, oh, you shut down the immune system with stress hormones. I said, it's so effective now, when surgeons are going to take an organ from one person's body and put it into another person's body, they don't want the recipient's immune system to reject the organ they transplant.

They give the patient before the transplant stress hormones, and that shuts down the immune system. So when they transplant the organ, it's not going to be attacked by the immune system.

Stress hormones are so effective at shutting down the immune system. It is used therapeutically. So I say so now where are we? I say we're being chased by a tiger.

Tiger? I shut the blood flow down my gut. It's in my arms and legs. I shut off the immune system because I can't afford to waste energy on that. While I'm being chased by the tiger and I go, there's one more outlet.

Diet, fasting, and reducing disease risk

Might as well as a third one, because I call this an insult to the injury. You just got few injuries shut off growth in the immune system. We want the insult.

The conscious mind which is right behind your forehead, is creative thinking, but it's a very slow process for the rest of the brain. Back here, about 90% is called subconscious mind, which is a million times more powerful a processor than the conscious mind and controls the functions of the body, essentially.

And I go, so what's the point? I say, if you're being chased by a sabertooth tiger, it's not time to think. Thinking will slow you down. So I said, well, what happens?

Remember I said, the stress hormones cause the blood vessels in the gut to squeeze shut and push the blood to the outside. The same stress hormones in the forebrain squeeze shut, but that pushes the blood to the hindbrain.

That's where the reactions occur. Reflex reactions. That's fast compared to thinking. So when you stress hormones or put into the system, you close the blood vessels down in the forebrain and operate from hind brain reflexes, which mean we become less intelligent.

The more fear you're in, the less intelligent you become, and the less intelligent you become, the more you look for somebody who is going to save me.

The pharmaceutical companies here. We're here to the rescue. Oh. Yeah. How much does that cost? Whatever it cost, you buy it. Okay. The point is, one, you live in fear.

They're offering a resolution, and that's what people do. They buy the resolution without recognizing they could have handled it if they were using their conscious mind.

But that's not working. That's the one that shuts off. And then the result is I'm victim. Victim means powerless, and powerless means find somebody who will protect you.

And that's why we spend our money getting protection from everywhere. So here's the point. Bottom line three things A close down the blood vessels in the gut shut down the maintenance of the body.

They shut down the immune system, conserve energy so we don't have any problem. C shut down the intelligence of the system so that we can use the rapid processing of reflex.

And I go, well, this is not a problem if you're running away from a saber toothed tiger. Why? How long is that run? Ten minutes. If you escape the tiger in ten minutes, guess what?

There's no more stress. Everything goes back to order again. I just shut it down for ten minutes. Today's world is, of course, 20 473 65. Stress. You're dripping stress hormones in your body all day long, all year long.

And the stress hormones ultimately are debilitating because you can't grow and maintain the body in a state of stress. And if you can't maintain the body in that state of stress, then your lifespan has gotten significantly shorter.

Yeah, well, that's a lot of words. Okay. There's a beautiful explanation of the impact of stress. It was it was really elegant. Thank you so much. Well I appreciate it.

But I just also want people to know that 90% of illness is all stress, right? That. Oh. Cancer. Oh, let me start again. Less than 1% of disease is connected to genes.

There is no gene for cancer. No, there's not one gene. I got that gene. I'm going to get cancer there. There's not one gene that causes cancer. Well, then where the hell is the cancer coming from?

And the answer is lifestyle and behavior that are not in harmony. And all of a sudden I said, well, then they get rid of cancer. Do I have to radiate the body and throw poison in there and kill all the cells I got?

Look, if you didn't have cancer and you went through that chemotherapy and the radiation stuff, you would get sick as a dog. And I go and here are people who are already sick.

And then they push up through all this and they make them sicker. And I go, because cancer cells are not the problem. Cancer cells are the symptom of a problem.

The cancer was not caused by the gene. The cancer was caused by not being in harmony with the world in which you live. And as a result, you activated gene.

But first, the stimulus was not being in harmony. If you want to get rid of a cancer, you don't change the genes. You change the consciousness. Yeah, yeah.

That's why our our whole summit is body and mind here very much. Mind. Very. I just want to go back to one of the things you said earlier. You talked about telomeres and telomeres ace.

And what's that. We can actually increase telomeres to repair telomeres. Yes. Then you mentioned free radicals and all the things that create free radicals.

Is there a comparable mechanism that addresses free radicals or are we just stuck with free radicals? No. Eat less. That's the whole thing. The amount of food is proportional to the amount of poisoning.

That's what it basically says. And therefore overeating. Supersized meals, not exercising or not using the system, but putting in all that food that's being digested.

Ultimately, the side effects of the digestion process or where the problem comes from. So would say intermittent fasting, repair free radical production, reduce free radicals and reduce it.

For sure. That's the biggest issue because the fewer cells you kill, the less you're killing yourself. That's just logic at that point. So the idea is subsistence diet and basically a very important reduction in carbohydrates because carbohydrates are a source of major problems.

There's a diabetes type two diabetes type one genetic issue. Diabetes type two is 100% environment. People have diabetes like you can stop diabetes type two.

So as they get back in harmony with the environment against about the eating in the food and what you're doing and stuff like that. A great story. I can't remember exactly who was was running a program.

It was called raw for 30 days and basically said, they said, look, we'll find insulin dependent diabetics, type two that are using insulin, and we're going to promise them something.

You come with us for 30 days and eat a raw food diet. You will not have diabetes at the end of 30 days. Well, everybody thought, oh, this is really cool.

They signed up for it. But about day three, man, they were climbing the walls because it wasn't McDonald burgers. So what they were eating now and their favorite foods were eating, but they put up with it.

What was the point at the end of 30 days, none of them had diabetes anymore. And I said, yeah, it's environmental. That's why it was cause. But then came the bigger question.

I asked them, so what happened when they went home and nine out of ten of them became diabetic? I say, why? Because they went back into the same program behavior that they had when they created the diabetes.

They left it for 30 days outside of their world, lived this other way, got clear of the diabetes. But when they came back home, they came back into the exact same environment that precipitated the diabetes. And they got it again.

Environment is the issue we're dealing with. So, Bruce, now we're going to get back to where we left off a little while ago about the membranes in your in your book.

At one point you referred to the magical membrane. Yes. At another point you reword it as mem brain. So tell us about the membrane and its importance.

Well, I discovered the research which was going to become epigenetics, where the environment changed the fate of the cells. The first issue I have my colleagues say, well, how does that work?

Well, I had no idea how it worked. I had the observation that it worked, but I couldn't say how it works. Of the media. They said, well, no mechanism.

We're not paying attention to you. And so I had to search. I said, well, what is facilitating this, this thing? I said, well, first of all, environmental signals.

I go, yeah, but the environmental signals have to get inside the cell like, well, how they get inside the cell. Well, first of all, they have to cross from the skin of the cell, the membrane okay.

And when you look at the membrane in an electron microscope, it is a simplest little structure, so thin that scientists didn't even know cells had membrane until the late 1940s when the electron microscope was developed.

Up to then they just thought cells were like jello with fruit and an eye just holding all the organelles like that. But then they found all cells have the same membrane.

That's a in the microscope. A very is so thin you can't see it with a regular microscope is it's visualized as dark light dark like an Oreo cookie. Okay.

And that's all it was. Just simple dark, light, dark. Very thin. In biology there is an understanding. There was an understanding that complexity is revealed.

The complexity of function is revealed in the complexity of the structure. When you look at the cell membrane had the least complex of any structure inside the cell.

So maybe there was a lot of membrane that's just like plastic wrap that holds the cell together is not more function than that. When I started to look into the nature of the cell membrane, I started to realize something you couldn't see in the microscope.

And that is, there are proteins embedded into that cell membrane. And there are two classes of proteins. One is called receptors in the skin of the cell receptors like well we have receptors eyes, ears, nose, taste, touch, pain, temperature, pressure.

I say just like the cells are. Receptors are built in the skin. I said, what do they do? They read the environment. Then what? They send the information to the inside.

So the cell adjusts its function to deal with the demands of the environment. So I said, oh, my God, the cell is reading the environment and then telling the material inside what they have to do, the organelles and what we need to do to stay alive in this environment.

So I was like, oh my God, that's a membrane that's doing it.

The cell membrane as an information processor

But I had that little simple structure. Well, I can't remember. I think it was 1985 is the night that I was redefining the membrane in a sense of the biochemical understanding.

It's a bipolar lipid layer with hydrophilic and hydrophobic zones, blah, blah, blah. And I was redefining the membrane and I looked at it, and the first thing I recognized is the membrane is crystalline because the molecules that make it up aren't all jumbled.

They're all lined up like soldiers on a parade. That's a crystal. So I say the membranes crystal, but the middle of the membrane, dark, light, dark. The light was fat lipid.

And if you have lipid in there, it prevents communication from an outside the inside. So I said, oh the membrane is a non conductor. Nothing can get across.

Well now you got a problem. How did you get food in. How'd you get waste out I go has to cross through the membrane. That's when I recognized the second protein type receptors.

But they're connected to another protein type called a channel. A channel by definition is like a conduit. You know, like the English Channel. It's a conduit to go between England and Europe.

It's a channel. Well, in the resting state, the protein channel is closed. Let's just look at it this way, I say. But when it's activated, the channel opens up and makes a tunnel into the cell and stuff can get into the cell.

I said, oh, when channel opens up, everything can get into the cell. I said, no, it depends on the channel. Sodium channels that sodium and potassium channels were potassium and glucose channels like glucose and histamine channels.

Let histamine and I go, wait a minute. The channels are determined. What goes in I go, yes it does. Then I say, are there channels for everything? So no, only for some things.

So I changed my definition. The membrane is a crystal. It's not a non conductor anymore, but it's not a full conductor. It's a semi conductor. It's only that certain things inside I write down membrane as a crystal semiconductor.

And then I said there were two kinds of proteins receptors and channels. Another word for receptor is gate. So I say now here's my definition. I'm sitting there in 1985 and I write down the membrane is a crystal semiconductor with gates and channels.

And I go, that sounds familiar, 1985, where I hear that I just bought my first Macintosh, and I went to RadioShack and bought a book called Understanding a Microprocessor.

I said, I think I opened it up there in the first chapter on the microprocessor. It says a chip is a crystal semiconductor with gates and channels. I go, wow, that's pretty interesting.

What a coincidence. A membrane and a chip have the same definition. I wait and dig a little deeper and I start to realize, oh my God, they are the same.

The membrane is a chip, an information processing chip, and the receptor and a channel represents a bit of data, a bit of information, input output receptor input channel output I o bit of data.

And I like to I choose my the cell is a programable chip I go and the nucleus the hard drive with programs called genes. And I say and the surface has two receptors which are like keyboards and the environment signals type on the keyboard.

The receptors activate, the receptors send signals into the channel. The channel activates the proteins in the cell and activates the gene reading I got my God, a cell is a programable chip and the environment is the programmer of this chip.

Beautiful. And then it just like evolution. So the secret here didn't go into it a lot, wrote about it, but then emphasize it. Evolution, we used to think, was due to more genes.

That was a Darwinian thing. The more genes, more complexity. So we do the Human Genome Project, and we have over 100,000 proteins that make up our body.

A little fact of biology. It takes a gene to make a protein. So before with the protein the genome was studied everybody we're going to have over 100,000 genes one for each of those proteins.

Well the human has 20,000 genes, which meant the entire understanding of how the damn thing work was wrong when the genome project came out, says you.

It's we don't have that many genes. And it turns out that actually the drive force of evolution is the nervous system, not the genes. There's a name. Probably almost nobody out there is going to hear.

I've heard this name. Jean-Baptiste de Lamarck Lamarck wrote the first theory of evolution 50 years before Darwin's theory. Lamarck is credited as the first scientist to write a theory of evolution, and his premise was that evolution is based on the interaction of the environment with the organism.

Because the organisms fit in their environment. Polar bears are not in Africa, they're in the Arctic. Roses are not in the Arctic. They're in the temperate zone.

I got organisms, environment, lockstep interaction. I go, this is what the new science of epigenetics says. It's the environment that is selecting the genetics to make the organism fit the environment.

I go, oh, wow. Then I go, here's the part that I took this jump. And it was like, amazing because I said, wait, then the membrane is a chip. I go, yeah. And I said, well, how powerful is your computer?

And you say, how many bits of data are in in the membrane bits of data a receptor channel complexes A cell has over 100,000 different bits of data in its membrane.

And I go, so all the cell is a computer chip. I go, yeah, it's just like text, sister. The calculator, that's a computer chip. What's a computer? Take a whole bunch of those calculator chips and sequence them together.

And then you get the ability to make a computer. I go, your cell is a programable chip. Put them together in a community. And guess what. It's a multi chip organism called a computer.

That's what the brain is. All the cells are are processing information and turning it into behavior and function. And

that's why the skin of the cell in both the cell and in the human, the skin are the source of the nervous system because they read the outer environment and then altered the influence on the inner environment to support life in whatever that outer environment is.

And all of a sudden I said, well, you know what this means. The foundation for a theory of evolution that has never been considered. I mean, I said, we're looking at evolution as genes.

I go, well, that already failed. There's only 20,000 genes we're supposed to have, but we're honored thousand I go the idea of it is this evolution is based on the cell membranes that if you look at the evolution of cell membranes and then cells and then cells joining together with their membranes with electrical couplings called gap junctions, all of a sudden you start to see these chips are now all being wired.

I go, yeah, so I said, what's the basis of evolution? A bit of data. Then I said, you want to know what evolution is about? What increases bits of data, more membrane surface area.

I go guess what. You know, the brain's got all those folds in it. Diary and sulking surface area. If you look at a primitive vertebrate like a rat, the brain is a smooth bubble inside the skull.

But when you go at the higher levels, the brain starts have folds in it. So what are these false okay. And gyrus or what are they? Surface area. The more surface area in the brain the more processing.

And that's why all of a sudden I said, wow. That's why if you take a human brain, put a flat, it's got a large amount of surface area, surface area. Right.

And then just like the cell, the cell can only have so many, so much membrane can't make any smarter because a bigger cell is not stable. So I say, oh, then evolution stopped when the cell was finished.

I go, well, yes it did, I said, but it didn't. In one way I say why it changed paradigm. First was make the smart cell and part two was make the community of cells share awareness.

And I go and guess what? The human brain has a limitation of how much surface area can put into it. Can't make any more brain that can fit in his hand.

When the smartest human was created, that was as smart as a human was going to get then I say. But evolution stopped by making the smartest human eye at that moment.

But evolution, part two put the humans together and community share awareness. And when we share awareness, then all of a sudden we created the new organism called humanity.

Each of us is a cell sharing our awareness and a community which makes a difference between a single cell and a human. We're all cells, but humans have integrated 50 trillion cells, 50 trillion bits of computer processing.

Okay, we have a billion cells out here that the evolution has come together and community, because that's where our advances of human civilization have occurred.

They didn't occur by individuals. They occurred by individuals making advances, which collectively made something like, how did you make a computer? Well, I forgot what the number was about.

How many thousand or more different awareness pieces that were then put together, 3000 different bits of kinds of data were put in to make a computer?

Evolution, cooperation, and community consciousness

The more people, the more data, the more data, the more technology, the more technology, the more this thing evolves. And we're at an evolution rate that's so fast that it can change from day to day because of the a billion

neurons in the sense that are creating our world and we're facing evolution.

I say, what's evolution? Not Darwin? Darwin was survival of the fittest in the struggle for life, which says, screw everybody else. I'm going to be the fittest.

I don't care about you guys because it's survival of the fittest. I got that theory is the most destructive theory on this planet at this moment, because evolution is not competition.

Evolution is recognized to be cooperation. And all of a sudden you realize, oh my God, the competition is creating the violence, the war, the problem.

Why 1% have the money and the other ones don't because the competition I go, that's the evolution. Evolution it takes it takes us back to your conversation about stress, the stress response.

And now you're talking about the same thing on a community level where if we focus as a community on stress, survival, a survival of the fittest, we're going to have the same destructive results at not going to Steven, not going to.

We are the self destruction that we created in the environment is matched by the self-destruction inside the body, which is referred to as auto immune disease, which translates as self destruction.

So all of a sudden we're starting to see the issues that come into the body. They're not caused by genes. They're autoimmune disease. Cancer is caused by not living in harmony in your system.

Okay? Diabetes. Not living in harmony with nature, in the environment. Yes. Stephen. Okay. We're running out of time. No we're not. Oh, yes we are. And I had two other points I wanted to check with you on.

Let's see if we could put them together. Because yes, you talk about quantum physics. Yes. You also talk about spirit. Yes. Can you bring those two into response?

Yeah. We live in illusion. It's interesting. Albert Einstein quote was reality is merely an illusion, albeit a persistent one. I say, what's the illusion?

The illusion is that there are physical things and nonphysical things, and that says, oh, well, then physical things are made out of physical atoms. And this is where quantum physics came in, because in the Newton world, they separated the universe into matter and energy, two different realms that don't interact really.

And I said, well, what do quantum physics find out? Well, they said, well, what the hell is an atom made out of? Because it used to be atom. The word means untouchable.

And then they found, well, they could cut it and they could open up. And there was a little solar system nucleus and electrons running around it with different smaller particles, protons, neutrons, etc.

but quantum physics came into reality when they said, what the hell is a proton made out of a neutron or electron? And they looked inside. Nothing physical. It's all energy.

All atoms are energy. Everything made out of atoms or energy. And we have an illusion that we live in matter. Okay, well, the relevance about this in quantum physics is energy is everything is energy.

All of us are connected together in this energy. There is no border to an energy. It says energy stops here and something it starts over here energies.

Because it's like raindrops on a pond. All the ripples are connected. We are connected to energy fields. People receive the same identity energy field, which in in biology we refer to the receptors, the antennas that read these energy fields as self receptors.

No two people have the same set of receptors reading an energy field. And I say what's an energy field? Well, an energy field definition is invisible moving forces that influence the physical world and field.

I go, oh, what's the definition of spirit? Invisible moving forces that influence the physical field of physical realm? I go, well, spirit and field have the same definition.

I go so literally and I go, so what's different? I say we are each receivers of an energy field that no one else receives, because our receptors pick up that vibration and your receptors don't.

And no two people share that. So we're each downloading I say then who are we? I say, we're not the body that's the recipient of the field. Simple point bodies like a television set.

The broadcast is the field or spirit, same word, field or spirit. The broadcast that I pick up is not the same broadcast. You guys are picking up or anybody else in the audience.

I'm playing a show on my TV body so you can say, this is Bruce's TV and you're now watching the Bruce Show on this TV, and I go, significance. This is the whole thing that changed my life.

This one point, I go, what's that mean? I say, well, when you're watching a TV in a bridge, we say the two BS. Then I go, yeah, this is the broadcast still going, oh yeah.

So this is where another TV tuned it to the station. So I was on bodies on TVs and when embryos are developed, they get a set of soft receptors. If you die and a future embryo has a same set of cell receptors, your broadcast is now playing through a different TV.

Does it make a difference, male or female? No, that's a TV. Does it make a difference if it's white, brown, black, red, yellow? Okay, no, that's a TV.

We are not the TVs. We are the broadcast. And I go, oh my God, you can't die. You're not even in here. So I got to close with this because I was real critical.

My thinking moment science guy just finding out what am I going? I'm a spiritual entity. I'm an energy seal. That's different than you guys. Having your own energy fields.

What makes you different from everybody else? We're all playing our own station. And then I said, I can't die because the field is still there.

Quantum physics, spirit, and the nature of self

And it's like, oh man, it was so great. Because the fear of death, if you really own this, there is no fear of death because you cannot die. And I bought that right away. Yeah.

But then I, being a science guy, I asked myself a question. What? My question. I said, well, I have a spirit and a body. Why not just be the spirit? I asked that question and that led me to understand I have Jewish comedian cells.

So what? I mean, I ask the question, well, I have a body in a spirit. Why not just be a spirit? 50 trillion cells answered with a question. I said, what were what?

Why have both? And this is what the cell said. It is so profound. Blow your head right. Why have both and the cells? Said Bruce. If you're just a spirit, what does chocolate taste like?

Think about that. If you say matzo ball soup, it's all deep. It's basically basically says this, this. There's an extension of spirit. It provides things that spirit can do like see, smell, taste, feel.

What is love? Feel like? Spirit can't tell you that. That's an energy field. The body translates the chemistry of love

into energy, sending it back to source so that we have an experience of what love is about very quickly.

I know you want to end, but I want to just add this quickly and I just we can't go to Mars. I want to know what Mars is like. We send up the Mars rover.

It would be like a machine, like go. Yeah, but guess what? It's a human. I said, wait a minute. It's got all the receptors. It's a vision site. So everything I say, how does it work?

I said, there's a guy at NASA. He sends a signals picked up by the antenna. I say, then what? He drives a vehicle around, then what? The vehicle reads the environment and sends the information back to the guy at NASA.

And the guy at NASA has an experience of what it's like to live on Mars. Well, welcome to the Earth Rover. Why? Because we're getting a signal from source that drives us around, which creates the life we want to have, if we could.

That's the download of our spirit. And once we're into this machine, we move around and then we move around, and we have all the sensations of moving around and all the experience.

But we're also creating right. And this is where Bruce Lipton, non spiritual guy, wakes up at this moment of time and says, you don't die and go to heaven.

I'm praying into heaven. I said, what do you mean? I say, we're Earth Rovers, we're creators. We're creating what the spirit wants and dealing with the environment of this thing.

And I said, but if you have a desire to make heaven that's a creation than manifest heaven. You can do that. But your programs don't necessarily let us do that.

I changed my program. I am been living heaven on earth for 28 years. Why got rid of the programs that took away the vision of the beauty of this place?

And I want people to understand if there is a heaven right here and right here, right. And it gets us right back to. We could sum it all up in what your title of your book was, Biology of Belief.

That's a good title. Yep. It's a great title and it would be the title of our conversation. And it's certainly the title of the television station of Bruce Lipton.

Yeah, this is the Bruce Show. I hope you like it. I loved it, Fred. Thank you so much. It's been a pleasure. Really. Even Robert hiding here in the dark.

I know you're out there. Here's the whole idea is I hope the people that listen to this start to get a little idea of it, because most of them see life as a struggle, which is a Darwinian belief that we put into the system and then manifest.

And I say, if you understand the new understanding of epigenetics and the concept of Lamarck, which is we are in harmony with nature, and if we live in harmony with nature, we are gifted and encouraged by nature.

One of the gifts is longevity. If you're really living in harmony, nature says, come on, stay around here. But if you're one of the people that screwing up nature, it's like, we don't need no stinking humans.

You know, when humans are gone, nature replaces us up without us very happily. Thank you so much, Bruce. It's been such an enjoyable, pleasurable hour and went really fast.

To fast. We'll have to do it again. I would love to. I love working with you guys because I know collectively what you're doing is creating the consciousness.

The knowledge. Knowledge is power. Yeah. And what I try to tell people when I start to lecture, I say knowledge is power. Number two. I said, wait, wait. Let me say it a way that might be more relevant.

I say a lack of knowledge is a lack of power and we as a group have been deprived of the new science. Yeah, that is gorgeous. What is your website or how people can reach you and learn more about simple Bruce lipton.com.

Oh, it's a good and there's so much on everything we talked about and more. The kitchen sink is in there. There's lots of stuff. It's free download and joy and in the process support my dear friend Stephen and Robert in their program here.

Why they're offering that knowledge, the knowledge, the power to not survive on this planet, but to thrive on this planet. And thank you guys for letting me participate in the show.

Thank you. Bruce. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices but empower your wellbeing.

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