

Rebellious Wellness^{over 50}

Turn Off the Genes that Cause Depression, Addiction



Episode 74: Turn Off the Genes that Cause Depression, Addiction with J. Ann Dunn

Gregory Anne: Hey everybody. Today I have a guest who's gonna talk to us about our genes as they relate to our emotional wellbeing, as well as our physical wellbeing, which is new for me. I never really think about the direct connection between emotions and genetics.

J Ann Dunn, thank you very much for being with us today.

J Ann Dunn: Yeah, thanks for the invite, Greg. I'm excited to talk to you and your audience about this.

Gregory Anne: Why don't you. So you've got doctor degrees, you've studied all kinds of things around medicine and health and wellness for many, many years.

Yeah. But why genetics? How did you land on the idea of working mostly with people in their genetics?

J Ann Dunn: Well, it's a really good question. It wasn't what I set out to do and it's genetics and biochemistry, which is an odd thing because I failed chemistry a couple times before I got to medical school.

But I, it turned out to be something I'm super passionate about. As a chiropractic physician, I was practicing in New Mexico for 32 years and had a very successful practice. I do something called kinesiology or muscle testing. Along with functional medicine. I'm trained in functional medicine.

Of course the musculoskeletal, chiropractic end of things and nutrition. And I found I got the best bang for the buck with nutrition and I ended up going down that realm. And I had, again, a very successful practice, but at a certain point I realized there was a subset of people that I wasn't getting anywhere with all the tools in my bag with emotional work, structural work, nutrition, all the things I knew, they didn't respond the same way that others did. And we, as natural healthcare practitioners, we kind of park that stuff on the side and say, it must be genetic. You know, that was kind of the black box on the side that we couldn't really get to.

And my dad died at age 55 of lung cancer.

Not a big surprise. He did everything he could to get it smoking and drinking and doing all of the wrong things with his diet, et cetera. But the mystery was that his best friend ended up marrying my mom and lived another 30 years doing the same thing. And again, all you can say about that is, Oh, he's got good genes.

You know, again, parking it over there and myself, my struggle with depression, lifelong depression, since I was in my early teens, always was there. And I was always trying to do something to get myself out of it. Nutrition. Herbs, emotional work, lifestyle changes, everything.

Nothing ever really made a difference for me. And so again, unanswered questions. The other thing I had was chronic fatigue syndrome, which I couldn't seem to fix

on myself. I could fix it on other people, but not yourself. And so I started hearing this word methylation. I don't know, in your, in your sort of realm.

Did you hear that word?

Gregory Anne: Oh yeah.

J Ann Dunn: Starting to pop up. And so I was like, Methylate, what is that? And so I did this deep dive into methylation. And I got this video by this guy named Rich von Konynenburg and he was working with chronic fatigue syndrome and Myalgic encephalitis, that's the new name for chronic fatigue, but using genetics.

So he was doing genetic testing and noticing that there were certain genetic markers that were similar to the people that had chronic fatigue syndrome and were not there on people who didn't have chronic fatigue syndrome. So he started to look at that combination and I just, do you know when you get that feeling that you're on the right track and you get bumps, you know, you're like, oh my God.

I knew that that was the missing piece. At that point. I'm watching and he's going through biochemistry and I'm like, Oh my gosh, I'm gonna have to go back and get good at biochemistry. And so I got my genes tested through 23 and me, and then put it through a, it was a free service at that time where it would pull out certain genetic variants and you could start to study them.

And one of 'em was the vitamin D receptor variant, the vdr. And I started to look at that and basically it's you, you have your genes tell your body how to make certain proteins, and in this case, your genes tell your body how to make the receptor for vitamin D, and you've got a change in the DNA sequence, essentially from a parent or both parents. From one parent is called a heterozygous variant. If you have both parents, that gave you kind of a variation on that gene it's a homozygous variant, and it can reduce the activity of that gene by about 70%. And so that's a big hit when it comes to the importance of vitamin D.

Gregory Anne: I'm a big vitamin D fan.

J Ann Dunn: Yeah, me too. But I could never get my D levels up above 18.

Gregory Anne: Oh wow.

J Ann Dunn: No matter how much vitamin D I took. And so when I saw this variant, I went, This makes a lot of sense. So I took a deep dive into the vitamin D receptor and found a study that showed high incidence of lung cancer when you

smoke, when you have that genetic variant. and I went, Aha. The other really interesting thing is it's very much involved in how well your immune system works to fight off infections. So T cells, which are a big part of our immune system and how we fight infections. Viruses, bacteria, et cetera, are governed by vitamin D.

So if I can't absorb vitamin D, then my immune system doesn't quite mature to where it can fight off infections well. So that's number two. I'm like, Oh, chronic fatigue syndrome, often Epstein bar, viral related. And then the third hit was it's involved in how we convert certain amino acids into neurotransmitters like serotonin and dopamine, our happy hormones.

So I was like, Oh man, this in one gene. It answered all my questions. And so then the next question was how, Okay, well, sorry, sucks to be you, but what can I do about this? How do I make up for this? And as a muscle tester, I started to sort of dive in and do some experimenting on how I could get vitamin D to be absorbed by my body.

How can I bypass this gene or make it work better or make up for it? And I found it. I found it in a very cool study by Chris Masterjohn. He's a PhD biochemist, and he said the co-factors for vitamin D are vitamin K2 and A, and then your body can absorb D. And I was like, Gonna try.

So I did, I started taking that combination and bam, my depression, my lifelong depression gone and I'm not kidding, I was like, I think I'm happy, I've heard about this. I've heard about it, but I don't think I'd ever really felt it. You don't know until you actually have brain chemicals that are happy hormones.

And so, and then my immune system kicked in and the chronic fatigue syndrome went away within two weeks, after 50 years of like trying to figure out. So I was like, I'm onto something. This is big. Yeah. You know, if I can get in my brain making serotonin and dopamine naturally. . That's an answer.

That's a huge answer for a lot of people who are struggling with depression out there and they're taking SSRIs or, antidepressants trying to make up for this low production of our happy hormones and when you can actually get the body to make them through very targeted nutrition.

And so this was like a new concept to think about. And so I started to look at other genes, okay, so you have this gene that maybe there's another one that's really important to look at. It's called the comped gene, and it basically breaks down your stress hormones. So if you have a variant there, then you don't break down your

adrenaline and no noradrenaline, all the stress hormones that make you kind of anxious.

Then you as a personality, you're gonna be anxious. So if we can get that enzyme working better, get it breaking down your stress hormones and your whole physiology calms down and you calm down. So it was that concept that got me fired up. And so I created this whole map of the physiology that happens at the cellular level and then plugged in the genes, wherever

I found one that had reliable studies behind it, showing that it was associated with a particular imbalance and we could find a remedy for it and work with it. And we were able to prove it in our lab, that it actually had an effect on the body when we gave targeted nutrition that we could change the expression of that gene.

So, It was like, all right, it's on .

Gregory Anne: Oh, wow. That's a great story. Let's just quickly go back for one second. Explain to the audience what methylation is.

J Ann Dunn: Okay. Thank you. Yeah. So methylation it's a modifier, basically.

It turns genes on or off. So let's say you have a gene that's what's called a promoter gene, where maybe it's a risk for cancer, let's say a BRCA or something like that, where it's in your genome, but until it's turned on, it's just benign. Methylation comes in and basically puts a covering over it and doesn't let the environment turn that gene on.

It wraps it in this little blanket and says, Don't you know the environment is not gonna get to this gene? So without methylation, without proper methylation, which comes from b12 and folic acid in the right proportions, then your genes can't turn on and off. You can't turn off the cancer genes and turn on the cancer genes, et cetera, or the promoter genes in our body.

So and you can't repair your dna. You can't make neurotransmitters, you can't detox well. So lots of things are impaired if you have genetic variants in the methylation pathway and you can't make those methyl groups.

And one of the well known ones is the MTHFR, methylene Tetra hydro folate reductase. Know it's a mouthful,

Gregory Anne: just rolls off your tongue nicely doesn't right. ?

J Ann Dunn: I practiced a long time to be able to say that, but basically what it does is turn folic acid into the active form or methyl folate. So if you have a genetic variant there, it really just stops the whole ability to make methyl groups and modify your genes.

So it's kind of a big concept too.

Gregory Anne: Yeah. So now I'm thinking of people with a thyroid issue, hyper or hypo and other. So many of the common diseases, especially women, seem to present after 50 with more of these things. When estrogen declines, would you say that there are also genes. Are there also things that could remedy these so people could get off their meds?

J Ann Dunn: Yes. Yeah, very much so. And that's something I'm pretty passionate about because like the medications you mentioned, thyroid, it's taking over what the body should be doing instead of fixing anything.

And I, I'm fundamentally opposed to that on some level, I'd rather get the body doing it. And the better question is why? Why not? Why isn't it doing it? What, what happened yesterday that wasn't there the day before that caused your thyroid to go down? So I'm very passionate at looking at the underlying causes, the the why, why, whys that are deeper, deeper, deeper.

Even in things like functional medicine, which I studied and went to the Institute for Functional Medicine and at the time we thought we were cutting edge underlying cause, you know, we're looking at viruses, we're looking at bacteria, we're looking at hormone imbalances, we're looking at detoxification, and I call it whackamole cuz you're basically, you know, putting out fires all over the place.

But underneath those as I mentioned, that vitamin D receptor. I'm fighting a virus in my body for 50 years. Like, what is the matter with this? This is not working. So what was missing was my fundamental ability to activate my immune system, which is a better why and when it comes to hormones, why isn't our body making thyroid hormone?

Or why after 50 do women start to lose their energy and gain weight and get tired. You know, it, it's just things sort of go downhill here. Why, why does that happen? And can we cheat? Can we keep our bodies young and healthy and vigorous? And I very much think you can. And so it's all about understanding what is happening in the body.

Where's the breakdown in energy production? Where's the breakdown that makes us sort of age Faster or gain weight or get sluggish, or our moods go down.

Gregory Anne: I take a natural thyroid hormone and have for, I don't know, 15 years or so because I felt like I was going crazy, basically.

You know, it's like my body just stopped working and the medication feels benign, but it has always bothered me. How long before whatever is working in my thyroid decides that it doesn't wanna keep doing what it's cuz I'm supplying the hormone for it? Anyway. Very interesting.

So the next thing I think of is when you get the results of a genetic test, I wonder if sometimes they predict things that might not happen and then leave people in a state of fear.

J Ann Dunn: Yeah, that's a legitimate concern. And so what, what we decided to do, because my Happy Genes, we have two sides of it. Essentially, we have a side that is open to the general public where a consumer can go in and get a DNA test and they have the ability to get two reports. One is the mood and personality report. Which just shows a relative risk.

We don't know what's happened in your life that modifies your expression of your genes. You know, were you abused or were you beaten, or what, you know, whatever. Or would you have a happy childhood? Those things modify. We can't just completely eliminate the nature versus nurture a question cuz it's legit.

So we talk to people about, okay, this is just a relative risk and there's lots of things you can do to modify it, including your diet, your lifestyle, your emotional wellbeing, you know, whatever your protocols are for taking care of your emotional wellbeing. Those all modify your genes. So this isn't written in stone that this is gonna happen to you.

This is a relative risk. And then we have three reports that are only available to the practitioner, and that is the health report. And for that very reason, we want the practitioner there saying, Okay, here's a risk for Alzheimer's. Doesn't mean you're gonna get it. It means that, This could happen, and we need to be proactive.

The way we're gonna be proactive is under the care of a physician who can guide them through understanding that. And then a biochemistry report. And then the third report is supplement recommendations. So our system uses a questionnaire so that we know what's happening now, in your body.

So just because you have a gene doesn't necessarily mean it's going to express. If you have the symptoms and you have that gene, then we know, okay, that gene is expressing and it's creating a problem. And then the supplement recommendations are based on that, on an algorithm that that looks at not just one gene, one symptom, but the interplay.

So this gene and this gene together makes a certain personality kind of characteristics, but if you add this third gene in or you take this one away, it's that combination of genes that we look at. It's just fascinating. But the supplement recommendations are based on that algorithm. So it's a very complicated algorithm that we designed.

Cuz a lot of companies make the mistake of going, Oh, you have one gene, you got the Mt H F R, you need to take methylate folate. And it's a big mistake because there are lots of things that happen downstream when you do that, that you need to know what's happening down there first before you could ever prescribe methylate folate.

So the supplement program recommendations are based on all of that, and they're under the scrutiny of a healthcare practitioner who says, Oh, you're on thyroid medication already. Oh, you probably shouldn't do this supplement. You know, they have to take into account what you're taking, what your medications are, what your health risks are, or your health history essentially.

So if that, that makes.

Gregory Anne: Oh, it makes perfect sense. And your company does not recommend that you buy your supplement. You don't sell supplements?

J Ann Dunn: No.

Which is...

no, I didn't wanna,

Gregory Anne: Something I wanna talk about. There are companies that are offering genetic testing. That will tell you what kind of food you need to eat.

And I've always been a little suspicious of that, maybe you could speak to that. But then they also sell the supplements they recommend because of the genetic profile that you have. And that just seems to me like it's a snapshot in time. The test today is me today at this moment, at 2:00 PM whatever time it is, when I take the test.

And clearly my genes don't change minute to minute, but they could change in a year if I don't make changes. Right. Something could be expressed. Not expressed any longer. Right.

J Ann Dunn: Well, yeah, the thing is the expression. Our genes aren't gonna change. You don't have to do the test again.

But we do do diet recommendations because there are certain genes that'll kind of tell you, like I, the I have a TPH gene, and that's the tryptophan hydroxylase. I can't break down tryptophan into serotonin. So foods with tryptophan and I already knew this, that like chocolate, wine, hard cheeses definitely caused me discomfort.

I'm in a lot of pain and I feel terrible when I eat them. So it was those kind of things that informed our diet and lifestyle report, how well you break down fats very much genetically determined, you know? How well you make the enzymes that break down fat. Lactose. Another biggie. Do you have the genes for making lactase that breaks down lactose or not?

That's an important thing that can speak to, which diet is best for you. And so there are some very real connections between your genes and what diet is best for you. It was interesting cuz when I got mine I was always eating high protein, low carb. Cuz I read the Protein Power book and I thought that's cool. That seems to make sense to me.

Gregory Anne: Michael Eades.

J Ann Dunn: Yeah. But then when I got my genes tested, turns out I'm better with carbohydrates, complex carbohydrates and lower on fats and proteins. And when I started eating that way, I felt better. You know? So interesting.

Yeah. There's just so much confusion out there. You know, there's the keto to diet, almost all fat, or the carnivore diet almost all meat or vegetarian diets or the Mediterranean. How do you know, for you? So I found it to be very accurate and helpful to get those genetic rough sketches of where you should head for your diet.

Gregory Anne: Mm-hmm. Speaking of all the different diets there was the blood type diet where does that fall? Knowing your blood type, that's just one marker within a whole bunch of other things. Right?

J Ann Dunn: Yeah. You know, as that's a kind of a big topic, because I think for some people it really works and for other people it does not work at all.

It didn't work for me, but I had a patient who went to see Dr. DiAdamo, the original Dr. DiAdamo, James. He came back and he had this program and it was phenomenal. It was so right on, and he just kind of nailed his physiology. the son, Peter DiAdamo, wrote the book and differed very much from what James had developed.

So the popular edition of The Blood Type Diet was made easy to understand and easy to follow and kind of generalized, so, I think there's some value in it and sometimes when I look at a gene report, I can see, Oh wow, this really, this is an A blood type person, and it really does show that, they'd make a better vegetarian.

So I do see some correlation. I haven't done a deep dive.

Gregory Anne: Yeah. Just curious. Yeah. And I, I think the point that stuck out for me that you said the, the book that was written was made for the consumer market. Yeah. Easy to understand, easy for many people to follow.

J Ann Dunn: But to answer your question about the supplements, I felt that way too, Greg. I was like, I don't wanna be recommending supplements and then selling them, it didn't feel right.

Gregory Anne: Yeah, I like that. It doesn't feel right for you. ? I think it muddies the water.

J Ann Dunn: We were more in the education realm. I really want people to understand, while you are the way you are, I call it genetic compassion. Because for me when I looked at my genes and it's like, Oh my God, I had all these genes for depression.

No wonder I was struggling and it wasn't my fault. Because we do that, we blame ourselves, Oh yeah, gosh, what is it matter with me? Why can't I just be happy? I have a pretty good life. You know, I, lots of people who have it worse than I do. Why can't I just be a happy person? . And same with weight or fatigue or anxiety.

Why can't we just be calm? Why can't we just stop eating? Why can't we...

Gregory Anne: addiction? Right? People beat themselves up all the time. Who can't stop eating, like you said, or can't have three glasses less of wine per night or whatever it is.

J Ann Dunn: And there's a reason for it and it's, gosh, so many times I find it on the genetics and people go, Oh my gosh, that explains so much.

So, That's what we're in the business of, getting people to understand the underlying causes and know that there are some answers to it. There are some things you can do that modify that. And once you feel this, like, when I felt happy for the first time, no way am I not gonna take my program.

I'm never going there. I'm not going back there. And, you know, these patients that I talked about that weren't responding to anything I did, we put them on the genetic protocols and they came back and they. . Well, you, you probably know this cuz you were a health coach. These people that come in and, you know, it's like, oh God, it's gonna be something new.

It's like always something new with these people. . Well, they would come in and I'd say, How are you? And they're like, Good. And I'd be like, Wait, what? You're never good. What do you mean you good? How's your energy? Good. How's your mood? Good sleeping. Yeah. Pain pooping. Yep. Wow. .

Gregory Anne: As if it was just another day and I've always been like this.

Exactly.

J Ann Dunn: Exactly. That's funny. It's like, what do you mean I had a problem? Like your file was that big. But but it was stunning and things started to reverse. Things like ALS and Parkinson's and MS started to go backwards and I was like, My gosh, this is huge.

This is a big deal. And so I started, I quit practice and I started teaching this all around the country. It's a system that I actually still teach called Holistic Methylation. and during Covid I couldn't travel and teach, so I actually ended up putting it online. So it's an online course if people are interested in studying it.

Gregory Anne: Is that for lay people as well as practitioners?

J Ann Dunn: Yeah. Uhhuh. Yeah. Yeah, it is. I

Gregory Anne: And where can they find that?

J Ann Dunn: Under a website called Holistic Methylation. Holistic with a w So W H O L I know that's a mouthful to spell.

Gregory Anne: So my happy jeans.com is the place that people can go if they're interested in this test. Now, what I wanted to know about was the two different

reports. There's the mood and personality report and the diet and lifestyle recommendations.

Let's talk about the mood and personality report. Don't know a single person listening that hasn't done one of those, an assessment, a disc assessment, personality assessment, all these things. What's different from, Cuz I always get the same basic things cuz I guess, because, I answer the same way.

But what is different from your report? Mood and personality than telling me, Well, you're basically easygoing person, right?

J Ann Dunn: So we have what are called sliders. And this is kind of a different concept for genetic testing. We don't look at, Oh, you got the VDR gene, therefore you have depression. It doesn't work that way.

We look at where are all the studies that show that these genes are associated with major depressive disorder, so it may be 20 or 30 genes. And then we calculate how many genetic variants do you have in there? And then our slider goes across zero to a hundred, so you look at what percentage risk do you have of these conditions?

And so there are addictions. We do alcohol, addictions, smoking. Gambling, et cetera. We have ADD, ADHD in there, Autism spectrum disorder, major depressive disorder, anxiety, bipolar, ptsd seasonal affective disorder, schizophrenia.

So we look at relative risk of all of those categories, and each gene has been well researched to show yes, it has been associated with that particular condition and you have a homozygous variant in that gene, so it goes into the calculation of where you land on that slider. So it's very different. And again, it's that slider's not gonna change cuz that's your genes, you know? I've got one called the novelty seeking gene, which is like all the way over on a hundred.

And I'm like, well, If I had taken the personality quiz, I could have probably come up with the same thing. But it's cool to see it in your genes. Yes. Because it's like, Ah, okay.

Gregory Anne: Well, and some people are wondering, like you were saying, you, you wanted to be healthy and mentally well, but you were depressed.

What's wrong with me? Yes. I think if I saw a gene that said I was a novelty seeker, which at times could be problematic, especially when you're a young

person to just constantly go to the next and the next thing. But then it's like, Oh, it's in my genes. That would be a relief.

J Ann Dunn: Yeah, exactly. It's fascinating to know that it's the way you were designed.

There's another one. It's really fascinating too, cuz people aren't always self-aware, you know, And they're like, No, I'm not anxious. I don't know what you're talking about. And you're looking at, and they're just like, you know, they're coming outta their skin and they're like, Really?

Wow. I had this one guy who was like his grouchy gene showed up the irritability, aggression, anger kind of thing. And he's like, I, that doesn't make any sense to me. I don't think this is right. I don't get that. You know? And I'm like, Really? ? Okay. And then we put him on a program and he came back in the next time.

And he was Mr. Sweetheart. He was,

Gregory Anne: Did he notice it in himself?

J Ann Dunn: No.

Gregory Anne: Or one of those like, No, everything's good.

J Ann Dunn: No, no. But his wife was like

Yeah.

Gregory Anne: Wish we'd met you 20 years ago.

J Ann Dunn: Exactly. So it's interesting the unawareness that we have of our own situation. Let's say you have anxiety and you've done a lot to learn how to calm down. Like you learn to meditate and you start doing yoga and you're like breathing and self-aware.

You've learned to manage it over over time. And those are the people too I'll say oh man, you got some anxiety genes going on here, and they're like, No, I don't. I'm fine. What do you do? Well, every morning I have to meditate for an hour, and then I have to, you know, otherwise I'm, I'm like, Wow. Okay,

Gene profile is correct, could be correct, but you've learned to work with it.

Gregory Anne: So that's what Mood and personality.

J Ann Dunn: And then you have the gene report. On that report, we have the gene table that shows you Okay. You inherited the gene, the VDR gene, and it's associated with these conditions and each condition has a link to it showing you where I got that information, what study? Where was that found? So everything is backed up by scientific studies and they're all from the National Institute of Health or PubMed. They're the best of the best studies. So everything is backed up. I never said anything in here that I couldn't show you where I got that information.

There's even the entrepreneurial gene, which is kind of cool.

Gregory Anne: Wow.

J Ann Dunn: I'll ask them, I'll be like, Hey. , I'll bet you have trouble following other people's orders. Like you're always trying to think of better ways to do things and they're like, Oh my God. Yeah. I'll bet you when you're trying to follow a recipe, you're like, Well, if I add a little more cinnamon in there or a little more salt, it's gonna be better.

And they're like, Oh my God, that's true. And then there are other people that are rule followers. They're like, No, I never stray from that. I. Exactly, or always do the right thing. Yeah.

Gregory Anne: I'd be curious to see if I have that, cuz I always joke that people say, How did you ever start rebellious wellness?

Why rebellious? I came in this way. I truly did come in with like, I had to test everything and mom was, she was liberal, she was like, question everything. So that didn't help, you know? But, I'm always looking at somebody who's working near me, like maybe they could be more efficient if they could this.

J Ann Dunn: Totally have that gene. That's the DRD3 gene.

Gregory Anne: That sounds like R two D two.

J Ann Dunn: .Yeah. So that's highly associated with entrepreneurial tendencies.

Gregory Anne: Interesting. Interesting.

J Ann Dunn: Yeah. Stuff we couldn't think of, you know, would be genetic is actually in there.

Gregory Anne: So now when they did the genome project,

so many genes, Where did you say, Okay, we have enough for this test. We're not gonna do all, How did you decide on which genes to show people?

J Ann Dunn: Wow, that's a really good question. A very insightful,

Gregory Anne: I have the really good question asking Gene.

J Ann Dunn: Yes, you do have that one. I'm gonna put that one in my report from here.

So we looked at what genes kind of govern, how your brain makes neurotransmitters. How well do you break down chemicals and detox? How well do you make methyl groups? How well do you break down histamine, nitric oxide, inflammation? They're called hub genes. And they have a very real effect on our physiology.

So that was number one. And number two is we could figure out how to work with them. That's what I care about. I don't wanna just give you a bunch of genes If you can't impact them. Yeah, if we can't impact them. So there were genes that we could have an impact on. And it's usually basic nutrients, But however, it isn't like you could go, Well, I'm just gonna go get a multiple vitamin and cover all the genes.

Certain nutrients can send your genes in the wrong direction. So B6 is one of those where if you have a certain genetic variant, It'll upregulate in the wrong way. So when we design your supplements, it's a very specific, multiple vitamin designed, especially for you. So for me, I needed the A and the D and the K I need b12 the methyl form versus the.

You know, a ol form. So it's very, very specific. So yeah that's what we cared about was can we work with it? Does it fit into what's happening at the cellular level? How we are making energy, how we're making transmitters. Can we can we impact it with specific co-factors? So each of these genes, genes code for an enzyme, and those enzymes require a co-factor.

So we look at what specific cofactor for this gene that you inherited will upregulate that particular enzyme and make it pick up for the fact that you inherited this gene. Higher the normal levels of selenium, lower the normal levels of zinc or vice versa.

So it gets very specific for you. And That's the magic. That was the magic that we were seeing, \ as I was traveling around the country and teaching. That's what we saw and that's what I encoded into the software program so that it comes out very specific for you.

Gregory Anne: Let's talk about privacy quickly.

I know people have heard nightmare stories about some of the big names. I'm not gonna name names. And using their information with their names in data for studies and such.

J Ann Dunn: Right? Thank you for that. Cuz that was something that we were very passionate about and that's why I went to my own lab. I, we not, not that I own the lab, but we went to a private lab.

And the way our genes are or our DNA kits, I don't know if you can see this. I can, mm-hmm. . Oops. It's upside down. It's an upside down barcode. Yep. There's a code there. MHG 0 0 1 4 60. That's the only information the lab has. And so when that DNA sample goes to the lab, all they know is it's MHG 0 0 1 40.

No information about the person, age. Not name, address, nothing. So that information comes back to us and then we plug it into our system to hook it up to that person that did the test. The sample is destroyed after three months in our lab. So a lot of other companies have your, all your data with your dna, and

it's a little scary out there. They're selling it to pharmaceutical companies. I just heard a, somebody talking about how China could make a specific bio weapon for you based on your genes,

Gregory Anne: Oh dear.

J Ann Dunn: And like, Ah, geez, but yeah, we don't know what's gonna happen with that genetic information.

So that was something I was very passionate about. And when they, when it comes back and it's registered, you can put any name you want on there. You could put Mickey Mouse, and you know, as long as you know whose genes you were tested that's fine cuz it's, a big deal.

The world is so crazy, right? Yeah. Yeah.

Gregory Anne: Is this a blood test or a saliva test?

J Ann Dunn: It's saliva, so it's a little swab. It's not a spit. You know, some of the gene tests are a spit testing. You have to spit in a tube and it takes forever. It does. And little kids couldn't do it, so that's why we went to a swab.

So you can just rub it in there and elderly people who can't get a lot of saliva or babies can do it and it's a lot easier to deal with.

Gregory Anne: So now would this indicate, some people feel really well, they don't experience symptoms from their aging.

Yeah. But there is inflammation and you know, maybe they get a VAP test and so they have their whole profile or they get a Cleveland Clinic heart test. But will that test that you guys provide, show things like genetic markers for high inflammation in the body? Is that something.

J Ann Dunn: Yes. Yeah, very much so. The My Healthy Genes report will give you that, again, sliders, you know autoimmune diseases, cardiovascular diseases, inflammatory diseases mitochondrial diseases, et cetera. So it looks at your relative risk for those. Plus we have a blood work panel from a company called Professional Co-Op Services that we do that matches up to the genes and it's called the My Happy

Panel that we can corroborate. Oh, okay. Look, you do have that gene and it is expressing in the blood. And then we can do a before and after. So that's kind of cool. See, once we put you on the program, then afterwards we can see, Oh look, it did change. Those inflammatory markers are now coming down.

Gregory Anne: What if somebody doesn't have a primary care physician? Cuz you said you wanna work with a medical professional.

J Ann Dunn: Yeah, we have a referral network. So when I was teaching around the country, I have over 500 doctors that I taught how to look at the genetics and design nutritional programs around them.

And so we, I have people in virtually every state. I don't think I have Alaska. There might be three or four states that I don't have, but there are some people that can work at a distance,

Gregory Anne: Do a telemed?

J Ann Dunn: Yeah, do a telemed kind of thing. So if people, get the mood and personality and the diet report we have disclaimers on there saying, Hey, if you

wanna go further and get your supplements and get more information, let us know and we can hook you up with a practitioner.

So, so if they don't have a practitioner, the results that only go to a practitioner won't be seen by the consumer until they have a practitioner?

Well, they're bought by the practitioner once they sign up for it. So when you buy the DNA kit, you get the mood and personality report free.

And then the diet report is extra if you wanna do that. So there's a little bit of choices, but then if you want the whole package, you can wait until you hook up with a practitioner and they can purchase the other four reports for you. So there's five reports total.

Gregory Anne: Okay, Gotcha.

J Ann Dunn: So we test for 300 at this point, 375,000 SNiPS and we report on 570 of those SNiPs on our report and growing. But I just, I'm making a deal with our lab. They wanna do the whole, the entire genome now is coming down in price and it, and in the amount of, of data that they can compress and that we can process. We're about to go to whole genome, which is kind of cool.

Gregory Anne: What would be the benefit for the consumer of whole genome versus you guys in the science world?

J Ann Dunn: So let's say a study comes out that says, Hey, here's a new gene associated with major depressive disorder. And here's the study. And I go, Oh, cool. Gonna add it in. So I do that all the time. I'm always adding in genes whenever I see a new study that's got a, you know, a significant bit of research behind it so I can, I can draw from the entire genome now, which is kind of cool.

So that every time they log in, their report is updated with all the new genes that we've added in. So it always stays live and it always stays updated, pulling out of their entire genome. So, and I just wanna I said something before that is incorrect. Our genes don't change so people don't have to do this test again.

And if there are other companies that wanna use that file, you know that look at different things, there are different companies that kind pull out and look at certain genes that they're interested in.

We look at it through a biochemical pathway sort of lens, and then a chemistry lens which is maybe a little different than some gene companies do.

Gregory Anne: Yeah. So and do you think that we're on. I, I think of anti, I don't like the phrase antiaging medicine, but the future of medicine has lots of things where they can improve eyesight by putting stem cells in it.

Are there genes that are going to allow people to respond to those better or not as well?

J Ann Dunn: Yes, absolutely. In fact, my mom is 96 and she's my lab rat. So mom, Yeah. She has the genes for macular degeneration. And we were able to turn those off. Her sisters went blind and she did not, it all stopped the progression of her macular degeneration completely stopped about eight years ago. They said, that's impossible that she'll be back and she'll be blind and la la la. I'm like, She doesn't have to. And you look at her and it's like, she's not 96. She looks amazing. So yeah, definitely I'm doing research all the time on her.

Like, I wonder, look mom, your skin's looking a little crepey let's see what we can do to reverse that and, you know, and play with that. So she's doing a great service for our anti-aging research

Gregory Anne: I love it. I love it.

J Ann Dunn: I'm gonna get her a little t-shirt that says lab rat on it.

Gregory Anne: Queen of the lab rats.

J Ann Dunn: Yes. She's just like, Okay, tell me what to take or tell me what to eat.

And it's like, Okay, great.

Gregory Anne: That's the best patient ever.

I think what you pointed out is if you see a result, especially a quick one from having this thing and doing the thing that they tell you, and then you get the result right away, it's, that's the best motivation. I've always said that if you just do one thing that works...

We'll find that you're very motivated to keep going.

J Ann Dunn: Absolutely. That is a good point. And people do stay on their program when they feel like, Oh my gosh, I feel so much better. Yeah. I'm not gonna stop. I had, you know, an interesting case of a woman who had a methamphetamine addiction, and

her aunt brought her in and said, Can you help with this? And I was like, I don't know. I've never worked with this. This is early on when we were doing our research and she came in and I put her on a program and within a week, she said, I don't crave meth anymore. I don't want it, it doesn't even sound interesting to me.

And I was like, Okay, we'll see. Cause you had a meth addict more often. Like, Yeah, I'm better. I'm gonna do this. A year went by, she got her kids back, she got a job, she got a house and she was doing great. Then she stopped taking her supplements, went right back to meth, and then her family called and said, Don't ever let her run out again.

We will pay, we'll put it on auto pay. And I watch her, she's on Instagram. She's a friend of mine on Instagram now, and I watch her and she's doing great. She got completely off meth. I saw it happen with cocaine. I saw it happen with heroin. I saw it happen with alcohol. So I was like, this is cool if we get the brain making dopamine, which is what they're trying to do, right?

With these drugs is trying to get a dopamine hit. That's the nature of addictions is dopamine. That's the same with the, the novelty seeking gene that we talked about, or the entrepreneurial gene. It's a low dopamine and it's diff in different parts of the brain. So if we flood the brain with dopamine by getting the body making it naturally, Boom.

The addictions just stop. And so

Gregory Anne: how gratifying that must be.

J Ann Dunn: Yeah, I'm pretty excited about that piece of it too. I wanna start working with addiction centers and see where that goes. How excited.

Gregory Anne: Are you cloning yourselfJ?.

J Ann Dunn: Yeah. I need to, Yeah, I need to, It sounds like I got that entrepreneurial gene.

It's like, I, I got five minutes. I think I'll start a new company,

Gregory Anne: Okay. So people, if you're interested in knowing exactly where you are, I mean, I have my assessment, but this is assessing at a whole new level of your body and your genetic self and allowing you to assess with the help of a professional where you are according to what your genes are saying for the future, right?

J Ann Dunn: Yeah. And like you say, avoid the aging or avoid the possible diseases that are potential risks in there. Especially us, women. You talked about I think before we came on, we were talking about how after age 50, you know, it's like that it doesn't have to be.

I think there's a lot we can do to prevent that and to live our best even after 50.

Gregory Anne: I don't know who it was that I either read or interviewed but they said we wanna live long and die short. And I thought that's exactly it.

J Ann Dunn: That's good.

Gregory Anne: We have a lot of living to do and we really don't wanna have that decline in debilitating disease.

J Ann Dunn: Yeah. What's that saying about sliding into home plate yelling yeah what a ride.

Gregory Anne: Well, J this has been absolutely just so interesting to me because I'm a science geek to begin with, but also for the potential for all the listeners, myself included. I'm gonna share this recording with my family, we all have the same interest in living long, dying short. We've all also done 23 and me but we didn't do the disease component with them.

J Ann Dunn: The disease component is more about like, are you at risk for, you know, spin bifida or sickle cell anemia or you know, those major genetic risks. Not looking at the biochemistry like we are. They don't for those kind of things and they only test 20,000.

Gregory Anne: Oh, they're slackers only 40,000.

J Ann Dunn: Yeah, only 40,000. And we're doing 375,000 and soon, like whole genome. So it's a little bit anemic on its information.

Gregory Anne: Well, anything you wanna leave the listeners.

J Ann Dunn: I think really it's thinking about your situation, maybe getting off of the blaming yourself for what you're going through, and thinking that maybe there's an underlying genetic reason for it.

And it's not your fault. that's the biggest, I'm so passionate about that, the compassion piece of it. Understanding why you are the way you are. So even if

you don't get your genes tested, maybe that question can be, Gosh, maybe I'm irritable because of my genes, or maybe I'm anxious because of my genes, or maybe I'm depressed because of my genes.

It's a good question to ask and I think we need to ask it more. Or maybe my weight is high because of my genes. Not that it lets you off the hook, but it's a legitimate question for people to ask because it's very often the case is that underlying genetic variant there that's, that we can work with to modify that.

Gregory Anne: So, Thank you very much. We really appreciate you and listeners, we'll be back next week with another great episode. Thanks again, J.

J Ann Dunn: Thanks Greg. I appreciate your inviting me to le to talk to people.