Speaker 1:

Okay. So let me show you. I'm going to share my screen with you so I can show you what we do with genetics. This is just one example of what I can do with genetics. So for example, this is a person who has difficulty managing stress. And what we can see here is if we look, why is it... There we go. If we look at the genetics, you see up here, a gene that's called NRC31, nuclear receptor, sub family three, group C, member one. And you can see over here, it says glucocorticoid receptor. So the glucocorticoid receptor is the receptor that responds to corticosteroids like hydrocortisone, which is what your body makes when you're functioning a normal basis, but also when you're stressed. When you're stressed, it can make large amounts. Or sometimes if you've been stressed for long periods of time, it can make small amounts.

This person here, if we look at his brain and we look at all the genes that are affecting his brain function, or at least some of the genes, you see here, this nuclear receptor 3C1 has a power factor of about 175. Zero is no importance. And 200 is the strength of the evidence that this is a problem. This is pretty important, because this particular person has normal testing. Salivary cortisol is normal. The HPA axis markers are normal. But what this tells me is that this person has difficulty using the cortisol. The receptors are not sensitive. So even though it looks normal, now that we can look at the genetics, we can see that this person actually needs corticosteroids. We, in fact, put this person on corticosteroids, a normal physiologic dosage and the immune system improves, sleep improved, exercise tolerance improved, mood improved, a general sense of wellbeing improved. That's just one example of what we can do.

We can also look at genetics in other tissues. So, for example, we can look at the liver and we'll see that high, low and behold, that same gene is affecting liver function. So that's just one example of what we can do.

We can also look at other types of things. We can look at the etiologies of certain things. So I can look at different genes. For example, genes that affect electromagnetic fields in this person happened to be pretty relevant, et cetera. So there are many, many different things we can do. We can look at different gene maps, kind of like circuit boards, right? So we can look at all of these different gene maps.

Speaker 2:

And what do these gene maps tell us?

Speaker 1:

All different. This tells us how the body re-circles aging cells. This gene map tells us all of the genes involved in androgen, meaning testosterone signaling their receptors. So I can click on any of these. I can click, for example, on this right here. And you can see that this person actually, in this gene, dopa decarboxylase has several abnormal variant genes that are affecting the ability for this person to respond to dopamine, the neurotransmitter, which may be related to testosterone signaling.

Speaker 2:

So would this help inform your treatment?

Speaker 1:

Absolutely, this would help inform my treatment. We can look at all of these different maps, cannabinoid receptor signaling, catecholamine metabolism, which is dopamine norepinephrine and estrogen signaling, cardiovascular signaling, circadian rhythms, et cetera, et cetera. The list goes on and

on. So that's kind of what we do here at Whole Psychiatry and Brain Rehabilitation Center. And this is just one of the tools that we use to deliver personalized medicine. That's really about as personalized as you can get.

And I'll just add one or the thing that we will take these genetic networks. And we don't just say, "Oh, you've got an abnormal gene. Therefore, you have a problem." Because sometimes genes are buffered by other genes. So what we do is we take these genetic networks and we overlay them on your history, your physical, and also on the lab data that we get. And then we can see which genetic networks are acting up, which ones will require longterm supplementation, and which ones don't, which abnormalities in your blood work are temporary, and which ones are actually the result of genetic problems. So we actually overlay all of these different ways of getting information with this genetic data to give us the most personalized and precise approach to helping people restore their health and their vitality.

Speaker 2:

Thank you.

Speaker 1:

Okay, done.