Introduction and Guest Background

Welcome back to the Reverse Alzheimer's Summit. I'm your host, doctor Heather Sanderson, and I'm so pleased to be joined today by Rowena Gates. Doctor gates is a principal at ING three Corporation.

She helped launched Inc Three's Nano V technology and currently oversees business development for its use in health, regeneration and performance. You can see why I invited her.

Rowena has been a serial entrepreneur since 1995, when she co-founded one of the earliest companies to offer an internet based solution to the logistics industry.

Rowena received her PhD from the University of Washington for her work on international strategic alliances and regional economic development. While her collaborative approach remains, her focus has shifted from the economic well-being of regions to the health and well-being of individuals.

Rowena. Thank you so much for taking the time. It's a pleasure to have you here. It's nice to be here. Thank you for inviting me. So I want to understand, you know, just reading a little bit of your bio.

This isn't a transition that most people make from economics and logistics to Alzheimer's and and also, you know, understanding kind of the mechanisms of cells.

Right. You're in a very macro world and now you're in a very micro world. So what is your personal story and how did you become interested in this particular topic?

Well, I really it evolved. I, I said I help the company initially and I got so involved because it, helps people. And when you help people, it's much more gratifying than when you deliver international trade documents.

And so I, I didn't mean to stay, but I did. And now I've been involved for a long time and I find it fascinating. So I study a lot of my own and I kind of come up to speed, but I'm not medically trained.

Obviously. So what about Alzheimer's in particular? If you have a, an interest in, dementia and cognitive, cognitive function, whether it's declining or getting better?

Tell me a little bit more about your interest there. Well, the cognitive function is personally just a fascination for me, as you know. What was learned in the last 20 years is so stunning how people learn, how the brain performs and so on.

It's always been my, like, a hobby, almost. And so then the dysfunction is just the other side of the coin. And I think, like you, the goal is to prevent it and to, you know, reverse it if it happens, so that it's not been a specific target of mine, the disease state has not been, although all diseases are of interest, to what we are doing because they're they tend to be related to oxidative stress.

And that's a big factor for what are our companies doing? Addressing for a long time. So one of the themes throughout this summit has been the relationship between what we can see in the eye and the way that the blood vessels, in particular in the eye, relate to what's going on in the brain.

So can you talk about these connections? Help us square this circle between the eye, Alzheimer's and neurodegeneration? Well, the eye is a very heavy user of oxygen.

And the brain, which weighs about 2% of your body's weight, uses 20% of your oxygen. And so they are burning hot, basically. And when you burn oxygen, you have oxidation.

And oxidation can do oxidative damage or oxidative stress. So they're highly connected in that regard. And additionally, the brain is made up of lipids that are very susceptible to oxidative stress damage.

So it's not only burning the oxygen right there, it also is vulnerable.

From Economics to Health and Cognitive Function

And so these are aspects of it sort of connect the that brain function with the eyes, which are also very it's very you can you can measure things like mitochondrial function in the eyes because they're so sensitive to damage and oxidation and such bigger uses of oxygen.

So oxidative stress is this sort of biochemical concept. I mean, it happens biochemically, but I feel like for a lot of us it's very esoteric, like what is oxidation oxidative stress mean.

And so just explaining that reactive oxygen species are made in our body and kind of like inflammation, these are good for us in certain amounts and in the right place.

But it's when we don't get enough exercise, don't get enough sleep. When we eat the standard American diet, these builds up these reactive oxygen species.

And and these act that oxidative stress starts to accumulate and it causes damage in the system. So can you describe a little bit more of how like your understanding of that concept?

I'm sure that oxidative stress is really that occurs when the damage outweighs your body's antioxidant defense. And that's why people are so in their nutrition and so on.

And so important to to make sure that you have a good defense. But when you have too many toxins, poor nutrition on and on, then the damage, from free radicals outweighs what your body can cope with and it accumulates as oxidative stress damage.

And, I think virtually every disease, has oxidative stress implicated in it. Any chronic disease, they're all age related. That's all related to oxidative stress. And, and the way that relates to what we do is it's, all related to protein activity, which you'll hear me talk a lot about.

And I probably shouldn't tied together for people because we tend to think of salmon as, you know, protein, which it is. But I'm happy to walk through, how that kind of works together to create the proteins I'm talking about, which are the proteins in the body.

Yeah. So you basically with nano, we have a product that helps to protect proteins and helps to regenerate proteins that are damaged by oxidative stress.

So when we think about oxidative stress, where the concern is is that as it accumulates it starts to cause damage in the cells. And there are there ways I think you're you had mentioned some eye markers for neurodegeneration that essentially represent what's going on.

So when these proteins are misfolding, when they're misshapen, when when they're not quite functioning. Right, it means our cells don't function right.

Correct. And there's so many proteins in there. The cell is tiny, but there could be, you know, 5 to 10,000 proteins in there, plus the mitochondria and all the other stone components.

So it's kind of a crowded place. Since the body burns oxygen and all the mitochondria uses it. Well, the oxidative, the docs that have damage, just like exhaust from the engine of the mitochondria.

So all those cell components are vulnerable. So really, you want an antioxidant sitting right there to interrupt the

free radical and everything's good.

Oxidative Stress, the Eye, and the Brain

And, so you if you don't have that occurring, then what gets hit? Well, the proteins are really handy. They get hit. And so does everything else. And so that damage, it's so important for the cell to repair it and the all the repair work, nothing gets done without the proteins.

All the repair is also done by the proteins. So you don't want some cascade that, you know, the proteins are damaged so they can't fix things and so on.

That's a downward spiral. That's why you want to, you know, keep your health. Not all of these, you know, great protocols for making sure your you stay stay strong and avoid those negative spirals.

And it sounds like it, but this is one of them, right, right. That that negative spiral leads to complex chronic disease. But it also what's hopeful about this rate is that you can spiral in the other direction as well because there is a cascade because the proteins kind of they're responsible for how they function, but they're also responsible for repair.

So if you can support the protein function, then you get better repair and you get better function. Right. So you can you can take it in both directions that they start to layer on top of each other.

And we want to focus on the good direction. I couldn't agree more. And I don't believe I believe the body just has unlimited capacity to heal itself. And part of the trick is to get out of the way.

Don't bombarded with chemicals and things that, interrupt that ability. But I, I've just seen too many things that are absolutely remarkable, that people can regenerate in ways that were almost unknown.

And so I think it's so important to stay on those positive spirals, but understanding that there are spirals. So you might take a while to get it started.

Don't expect it overnight, but once things start clicking into place, then you've got that spin that can happen in the right direction. And this is the mechanism.

This is the reason why it's so important to do those foundational pieces. And then on top of it, if we can do the nano V and get that additional support.

So improving the protein function is particularly important in dementia. And part of this is because of, you know, tau proteins and beta amyloid plaques are essentially these misshapen or misfolded.

That's one interpretation of sort of what's going on. You know, there's also the interpretation that they're there to support you because they're anti-microbial.

But in, in effect, they are causing neurodegeneration. And they are proteins, right? Tau proteins. And so proteins in particular are of especial importance in dementia and Alzheimer's.

And so can you speak a little bit to what's kind of going on there with the the sequence of events that leads to disease. Yeah, yeah. There is a protein that's, you know, they're all there for a reason is called amyloid precursor protein.

So just it has about well, this is where the story about the amino acids might be helpful. But generally the proteins are made up of amino acids that are strung together.

And, later I can talk about how that relates to food, if that's helpful. But for now, that protein. How's about, I think it's 771 amino acids. It's a big, long chain.

And what happens is that they're enzymes that will break it down. And that's what's creating these pieces that, are amyloid. And they can have, anywhere from 38 to 42 proteins.

If they have 38 or 40, we don't really care that much if they have 42, they stick together. And so when they stick together, they form the plaques. And that's why with genetic testing, they'll be looking for that as, an, an indicator of early Alzheimer's.

It doesn't mean you're going to get it. It just means you want to keep everything else going. And and on that, that side, if I can just sort of interrupt myself a bit here.

But I was listening to, stem, a cancer stem cell seminar last night. I was invited to and, the doctor and I had a great comment where your genes are the alphabet.

I'm sorry. The the DNA is the letters in the alphabet. The genes are the words, the genome are sentences. But that does not create the book of Life. The book of life is everything else.

It's how you string the sentences together, make paragraphs, do punctuation. All of that is epigenetic. That's your piece. That's where you help people.

And it's also where we help people and people help themselves. But and how all of that works is epigenetic. And it's many times more important as a, factor than the, the genes, the actual genetic component.

And so that part of it where the proteins will function better is just a huge factor in Alzheimer's. So even if plaques are starting to form and so on, there's also, your brain's ability to work with out certain things online.

It can work around things, and it can repair to a certain extent.

Proteins, Misfolding, and Alzheimer's

And so the key is to, you know, arrest anything that's going on reverse what can be reversed and certainly not let it, you know, any any further degeneration.

But all of that is dependent on the conditions that are in the body and the, you know, what's available to work with and, and repair. So what do you what makes you feel that protein folding is at the frontier at the very, you know, the spearheading medical research?

Well, it's the biggest focus in medical research right now because, where you and I, I believe, take the approach that you want to improve the system.

You don't want to override it. You want to make everything better. And by the way, for these proteins to work, they rely on things like calcium or zinc or magnesium or whatever.

So you have to have the right stuff in there, so that they can do their jobs. And so, we look at what's missing. Let's get that in there. What's in there that shouldn't be there.

Let's get that out. Let's make everything work better in the health system. Where the medical science looking at proteins, they're trying to create a synthetic protein that will go in and do something specific.

And most of the drugs we currently have are related to either initiating or interrupting, approaching something like 70% of them already are looking at that.

But when when they can actually predict the folding of the protein, then they have a model and they can create these things so much more precisely. And, they have to figure out what they, they need to, you know, what's doing what, which is highly complicated.

So just so people understand, we have, you know, estimates are 500 to 1 million different proteins. I mean, there's a lot of them in there. We can name less than 50,000 of them.

So it's not like we know what who they are and what they do. Well, we're we're kind of lost in many ways. And so this the idea here is they identify the, identify a certain receptor, say, and then they want to block it.

They, they know the, the protein that blocks it, and they model it and create it. And so by shutting something down or turning it on, they influence health.

And there's, there's a wonderful things that can be done of that. But protein forming is extremely complex. When I said there's, under 770 something amino acids, collagen has something like, over a thousand, you know, and they all have to pull together and be in exactly the right position for that protein to work.

So it's highly complex. And they announced that they did some work last year on DeepMind, which is a Google subsidiary that's only focused on protein folding.

And, but it was just written up in science about, a few weeks ago about this huge breakthrough in the modeling of proteins and some of it out of the University of Washington, which is where I'm located. So that made me not so exciting.

So these proteins that we think of them, I think some people think of them as strands, like a chain of pearls, right. Or a strand of pearls. But this is really it's the tertiary structure is what we see in biochemistry.

So it's how they fold back on themselves and create more of like a glob of pearls versus a long strand. And that glob is very specific how that is folded, if it's a little bit misshapen, that it to the left or to the writer up or down, then it will not work the same way.

And so this is extremely important. And there are a lot of people, I think maybe at DeepMind and I don't know as much about what exactly is going on there, but there are a lot of people looking into proteomics.

So one of the most really important pieces of data that we could collect is how well are people's proteins folding and how often are they misshapen. How often are they well, like, how often are they shaping in the way that was intended, because that has such a big, huge impact on on cell function.

And as you mentioned, not only the function but whether or not they are the cell is capable of repairing. Okay. So how does oxidative stress directly interfere with or support or change the way proteins are folded.

It's that it's, it will come in and because it's free radical that comes in and steals part of the, the protein because it's looking it steals an electron actually.

So it's not a whole amino acid or something, but it influences the bonding in the protein and how it can, the folds are held together with different types of bonding that help the structure to be, stable.

So you want the protein to fold correctly and remain stable. And so those, those free radicals interrupt, that bond, it can damage things directly as well.

Which it just sort of takes a hit. And, there's a, you know, a bit is either, missing or not functioning. And then the protein, has to repair that and recovers as fast as possible.

And where we have the most protection probably is the DNA. The body's really designed to try to protect the DNA, because the DNA is the blueprint, and we hear about it.

The blueprint of life and everything. But the DNA only has one purpose. It's the blueprint for proteins. And so that's where we hear more about DNA than proteins.

But actually proteins are sort of the whole point. And but the that's why the body is pretty good at protecting DNA, not perfect. And so once it's damaged, then, the what it, it's blueprint will not create the correct thing.

And so that's where, that's how you get some of these spirals going wrong. Direction is, was with DNA damage. So when states of health. But pathogens make people most vulnerable to Alzheimer's, well, that's your area.

So, I, I would say the, that all the, the areas that you focus on, which are all the things that, help avoid the oxidation, oxidative stress, other things are things like, endurance athletes, if they don't regenerate correctly, they're taking a hit on the body.

And so we have one, triathlete that did the equivalent of ten Ironman triathlons day after day, ten days in a row, and it's called the Deca Ultra Triathlon.

That's challenge. So use the nine of you every night. But you know, we're good, but we're not that good. It's like, that's a lot of damage. The body's not designed for that.

And so, you can do things that are beyond like just the, you know, toxicity and so on. And that's why athletes are often really paying attention to their nutrition.

They're taking supplements or taking things like peptides, college and so on. Which are the amino acids that are needed to, to build proteins. And by the way, there's 20 that are used and half of them come from food and half of them are made by the body.

So if you don't get them from your food, then your body's going to be struggling to create the proteins it needs, and it's probably going to be stealing from muscle or another place that protein is stored, just like it'll steal minerals from bones if you need it.

Exactly is the great adapter. It figures things out that are just spectacular. So from your perspective, why have so many of the treatments for Alzheimer's failed?

I, I think for one thing, that they're addressing symptoms. They're looking at how do we reduce the amyloid plaque? Well, that's a symptom of a problem.

Why Alzheimer's Treatments Fail

And so if you try to just interrupt it there, you've kind of missed you've you know, you've lost the plot. It's it's it's much, much earlier and sooner.

And so I think that's one of the reasons like that science looked at it and said, oh, it's this, is this plaque. It's this tangle. You know, we that that there's two enzymes that create, those snips of that, AP protein I talked about, you know, can we interrupt those two snips?

But it's like, why are those two snips jumping into action? Right. And so it's very late stage of view. It's maybe a great idea. Maybe you, you know, you can do some good.

But I think that in my opinion, there's there's a lot of, focus on what's really very far into the symptom category rather than because it's so important to think of dementia as kind of the way we think of cancer.

Right? By the time someone has dementia, dementia, they are, you know, unable to recognize their family or unable to come up with words. That's that's like stage four metastatic cancer.

Right. And what we want to do is be intervening early on when you can't remember that word of the name of your neighbor who you haven't seen for a few weeks, or you know, the name of the street you lived on as a kid when when those things start going, when you notice that your cognitive function or your memory is not what it was a decade ago or a few years ago, that that's that that kind of we call it mild cognitive impairment or subjective

cognitive impairment that that's really the time to intervene and to start thinking about, okay, how my day to shift my lifestyle.

We know those things have a huge impact. So if we can reduce the oxidative stress just by changing what we do, and then there's other things that are exciting, some some fun technologies.

And we chatted a bit on this summit about photo bio modulation. And now I, you know, I was sharing with you before we hit record. Like, I get so excited about this stuff because my model, as a natural doctor function medicine, however you want to call it.

I love looking at the whole system as you mentioned, and also what's going to affect change and promote optimal function at the cellular level. And reading about your technology and some of the science that has come out about that, that's exactly what it does.

So instead of, you know, a lot of the medications that we're seeing and certainly some of the new medications that, aducanumab that was recently and controversially, approved by the FDA, the side effects are brain swelling and brain bleeding.

People, when we can intervene with something that actually enhances cellular function, the side effects become less inflammation, less pain, you know, less osteoporosis, less migraines, like, whatever it is, better blood sugar, all the side effects of helping every cell to function a little better is that all of health improves.

And so we don't have to combat this. This kind of like whac-a-mole game. So tell our listeners a little bit more about how nano V works. Sure. I'm more than happy to, I've talked a lot about the proteins and all proteins are immersed in water.

In fact, we're usually on 65 to 85% water, depending how we are. And so on. But in the body, 99% of the molecules are water. So there's a lot of water in there.

It's all over the place, and there isn't any protein in there that's not immersed in water. So that's that's the starting place. They, they, they live in water.

And what we do is we influence the water and in a way that augments what the body naturally does to the water to support the protein folding and stability and the way we do that, I can well, I'm not screen sharing.

Why am I either looking at me? You okay? I apologize, I have not made you the host, but you can now screen share. Yeah, I would love to see these. These slides where you describe.

And because I think that the pictures speak a thousand words, certainly in this case. And understanding how the water interacts with protein folding, is really important here.

Yeah. So I'm going to show the device. Let's see I need to move out of the way and move this up. But this way people actually know what we're talking about.

And to you, you can't really see it there. We go. So, you know, looks like something that an institution might have. There's like a water, a humidifier.

Essentially, institutions should have one of and so this is, a tube that you can read with like this, or we can use a cannula and I use the cannula because I use it while I'm working.

Oh, no, I just turned it on. The bubbling water is just the color in there is only for show and it's creating humidity, which is what we need for the device to work.

So I have, just one second. I'm going to move this down out of the way. So. Are you still there? Yeah. Yeah, I can see you. Oh, dear. I can't see you anymore. It's awesome.

So, if you can see me, I can just keep going. Please do. I am good, please do. I was like, no, I'm kidding. And so what with that humidity, we are emitting certain wavelengths.

And you mentioned, they're the light therapies. They tend to be around just a fire. They tend to be around 6 to 900 nanometers. This is up around up above 1200 nanometers and higher.

So it's a different part of the electromagnetic spectrum. And what we're looking for is the ability for the, the water to absorb the wavelength, whereas red light therapy, if you put a glass of water in front of the red light, you will see the the red light because it's not absorbed.

So by the water it goes right through the water. But we are the opposite. We want the water to absorb that energy. And then, the person inhales the humidity and that that's how it's delivered to the body.

It has to touch the mucous membrane, but it's not delivered like a substance. It's actually delivered like, those cracker balls where you hit one and the one at the other end goes up so it moves across the water molecules in the body.

And it's called ultrafast transfer. But it's just a process in the system. That is more akin to being electrocuted then to having something that's used throughout the body slowly.

How NanoV Works with Water and Protein Folding

So this isn't like a supplement. Like you said, this is more like there's an ultra fast transfer. So which someone just the logistics, the practical side of this with someone where the nasal cannula like you do at work, you know, is it 20 minutes. Is it for eight hours?

How long? Do you do this? It sounds like it's pretty passive. So someone, even with late stage Alzheimer's would be able to put this on and get some benefits?

Yes it is. Oh, and that was another thing you mentioned before about the early prevention. There's also that whole side. It doesn't matter how late stage you are, there's good things that can be done.

And so I just wanted to mention that from our earlier conversation. But you have to do more. And so there's we have different sizes of devices. So if it's the most powerful device, you use it less than the least powerful one.

But it could be anywhere from 20 minutes to hours. And if it's easy, you'd like for me to use the cannula while I'm working. I'll just leave it running for a while, you know, until I have to get up or something, because there's no reason not to use it.

It's so easy to use. But if it's difficult to use, then you want to make sure you get in at least, one session of 20 minutes a day on the most powerful device. And and if you're in a disease state, you want to do at least double or triple that, or do two sessions with double length and so on.

And so it's sort of you just go full out when somebody is really struggling. And, I should also mention there's no reason not to do it. It doesn't have because of the way we work, which is changing the energy state in the water in a way that the that supports the proteins, so the proteins do everything.

They know what to do. We're not overriding anything. So it doesn't have that potential for harm or anything. That could happen. So there's no reason not to do it. Nice.

Good, good. And then we had just briefly about how to use it with photo bio modulation, so that these kind of complement and enhance the benefits of each. Yes.

So they're taking a different approach. Ours is systemic. We go from the inside out and the red light therapies are going to go to a certain length, certain depth, but if it's too deep, it's, you know, it's a laser.

And that could be maybe not good. But so they're working from the outside in. So they're actually they tend to stimulate the, particles in the cell, like the mitochondria, which is a really, you know, as, you know, a big use.

It's a big factor in everything we do. And we want the mitochondria working well for every different reason. And so if you, if you kind of the red light hits it, it stimulates it and has a positive impact, we're the opposite.

We're going to the environment and we're, we're stimulating that the energy level. And in there. And so then the, the object, you know, like the mitochondria, the protein and so on or draw on that environment and function.

And just so people understand because I'm sure there's questions about this energy state, but it's not an energy like heat or light that we normally think about.

It's actually called entropy. And what our device does is it makes the water more ordered or less chaotic, more structured, more water molecules are packed together and ordered.

That's the state that needs to build up on proteins for them to function, because they can't just go from a chain of amino acids to a complex 3D structure, you need energy to do that.

So where are they going to get energy from the water? And so we are just kind of improving the environment for the proteins by making water more ordered so that the proteins can rely on that.

And that's exactly what your body does. We're just mimicking it. Yeah. The body's always recharging the water to support the protein function. As we get older.

We don't do it as well. Certainly in this state not working as well. Or if we just want to stay healthy and have prevention, then you want to start augmenting that perfectly healthy child with great nutrition.

And all of that stuff should not need this. They should already be found. I don't know how many of those exist these days, but usually it's after 30 or 40 that there's more of a cellular decline.

So, some of our listeners might be familiar with Gerald Pollack, who is at the also at the University of Washington. I was lucky enough to get to hear him talk at a conference about what he describes as the fourth phase of water and how important that is for cell membranes, that this the water is basically lined up.

These H2o2, these water molecules are lined up. And so we think of water as being like what we would drink out of a glass. Or maybe it's in the form of ice, or maybe it's in the form of steam, but we don't think of it as being in the form of water, but having the molecular structure lined up in such a way that it might have an impact on cell function.

And this was the first time I was sort of introduced to this concept, was was carrying him speak. And you guys kind of take that concept. And I think we're work somewhat with him.

To, to basically potentiate cell function by harnessing and exploiting this benefit of how exactly how the water is lined up. Am I saying that right? Yeah.

It's really interesting that we first met him. He already had the technology kind of sort of understood. But there was still this piece of water science that was not in place.

We could prove it did work, but exactly why. And so when we met Gerald Pollack, he was like, oh my God, you know, you you built what, you know, I was thinking should happen and, and we were like, oh my gosh, you you've got the water side.

But your comment about the glass water is really interesting because what Gerald Gerald's work needs is surfaces. This easy. Water or fourth phase of water only builds on surfaces.

You can't buy it in a glass. Don't let anybody sell you a glass of easy water. Because it's got very little surface area there. And, so what in the cell, though, there's tons of surface area.

And so that's where the, that fourth phase of water is built up. And actually, in the end of May, there's an article published about nine of you showing that it is it has all the characteristics of the surface water or easy water.

It's also called, because the reason it's called easy or exclusion from water is that since them the water molecules are packed together, they push out anything else.

And so they use little measures to see if it gets pushed out. Then, you know, the water is very ordered and it excludes any, any, anything else. And so it's called the exclusion zone.

But it's just a zone on the surfaces. It's not a bucket of water. And so it, that zone has to accumulate around the protein to keep it stable or to help it fold or to prevent it from misfolding.

And so those are, you know, water is the water and the protein interacting. That's the important thing. And you get it. So a lot of this can feel I think it's hard to explain in words.

But you guys have some great videos online. So I want everyone to know where they can take a look at the videos and kind of walk through the cellular mechanism of what's going on.

That's so helpful because, it's so much easier to see it in a 3D video than it is to try to have me wave my arms. It's in three corp.com. And then on that page you just go to how it works.

And so that's B and you three c or p.com. So any three corp.com. Or you can just do a search for now v and and three nano V is in a in the eye and nano because we're all three we're working at a very very small level.

And then that's another way you'll find it is so your this we talked about combining this photo by a modulation. But my understanding is that this is something that can be applied.

Really. You just enhance everything else that you do to promote cell function.

Research, Results, and Clinical Applications

So if it's exercise or meditation or PMF or red light therapy like we talked about, or brain training and getting, you know, any of the cognition exercises, any sort of detox, it seems as if nano, we kind of just potentiate you get a little bit more out of everything when you have this easy water showing up in the cells.

Is that right? It's interesting. We have scientific articles on everything you mentioned, plus things like hyperbaric or even what which, but you also have a speaker in this.

You've already talked. Yeah, yeah. Mike square we spoke with because I've seen clinically such great benefits with it. Actually the contrast oxygen's not just exercising with oxygen but switching back and forth and to exercising with oxygen and without.

But yeah. So those are all things that we have that sort of that scientific justification of why they amp it up. So much of you are doing you want or hyperbaric, you definitely want to also do nano because for one thing, there's the oxidative side of that, right?

The more oxygen the more oxidation. And if none of these the counterbalance to that, then you've got a really nice combination. But there's also things like mitochondrial function.

It's one thing to get your immune system, it's another to get utilization. And so then it's a really nice complement. When you do both. And we've got the same with your mouse and little bio modulation where they, it just makes a lot of sense, that they combine.

And you're kind of coming at it from two different ways. The body really likes that. Can you talk a bit, a bit more about the science and what's been published about the what you're offering?

I can, I can, if I could I don't know if I can screen share, but I could show you, What? That. Let me show you the results for this is, so that one publication.

So this is sort of the same team, but, it was it this part hasn't been published yet, so it's a, it's a, so you're the first. We're the first to know. Yes.

I think that's going to work that that work. You see a graph. So yeah, they're on. Oh, let me just walk through it really quickly. The very top line is, protein that's not damaged.

And by the way, all enzymes are proteins. So are all hormones. So our, antibodies, they're all proteins. They're just different, you know, sections or categories.

And so these are our proteins that they damaged intentionally, and then they measure the impact. So the top line is if it were undamaged, the orange line which is next down is when the the proteins were treated with now before they were oxidized.

And the purple line is when they were treated with nano B after they were oxidized, you can't really see the controls, but they were also treated with a, placebo device before or after and not treated.

So those are three controls, but they all get clumped together at the bottom. There. And so you can see this is a recovery of 42% if they're treated after damage and 45% of their treatment before down.

So that's substantially more proteins working when they had nano B versus let's see both of them. And so that's that's one example. And this will come out. It's just not out yet.

And this is another one. And I want to point this one out as well. Because in this case green is after and purple is before. And you'll see the reverse for this, protein, this protein, it's better to treat the better results come from treating after you damage it and treating before you damage it.

So are you saying that the protein actually recovered to an even higher state of health? Only higher than the, untreated proteins? Not as good as the as the whole, as if it didn't never been damaged.

So it will not recover 100% of the damage. But this testing was done by heat, by chemicals and these are both for oxidized. So they do oxidative damage because that's really the the topic here.

And it's such a big factor for Alzheimer's disease. And so those are the ones I just wanted to show. But to recover any of it is a good thing. But these results are recovering quite a, pretty substantial amount of it.

And so, that's that's some of the research. There's others, others have been done on, inflammatory markers, that are also placebo controlled or the response of the immune system.

And, then the another one is on blood lactate in athletes showing that, yeah, literally 17% less mud lactate when they were treated with the nanobody, which really just indicates that the system's working, that it doesn't go into this, you know, this lactate process, as readily if it's tuned up in advance.

And so there's this is the most exciting, research because it's on proteins specifically. Everything else is on, say, DNA damage or these other markers, that, that indicate health, in a at home or in a clinical setting.

Heart rate variability is a very easy way to see the impact. And this comes back to one of the things I know you like. And one of the things that's, so important for what we do, which is rebalancing the system.

I always want that system to come back into homeostasis and heart rate variability. We can see that Nanobody

helps rebalance it. For the autonomic nervous system, we actually we call it homeostasis.

Not homeostasis, the homo dynamic balance. So that it is like appreciating that it is always changing, but that if we can nudge it back still into balance.

And, and I think what Nova also supports, like a lot of the other therapies that we were discussing is this ability to respond to the environment, an ability to recover, an ability to tolerate a bit of stress because, let's face it, life is a little bit stressful just being alive.

And you know, whether it's UV radiation, very natural. But it can still be a stressor on the system. We, you know, there's lots of oxidative things that we eat that might still be considered healthy, but it's about balancing that out, about coming back to that homo dynamic spot.

Right. Exactly. I'm going to totally change my language. Yeah, because that's too much of a description. And of course that's all protein activity that genes don't do anything there.

That's, you know, that's well, it's it's proteins telling the genes are not static, right? The genes are the static part. And it's that the proteins that really determine that dynamic ability.

Yeah. And the proteins are saying, hey, we need more of this or whatever, because this guy's exerting and so on. And it's also, one thing it's an interesting aspect of Alzheimer's is, misfolded proteins.

And there's what's called the misfolded protein response. So if you make too many proteins and they don't get folded in time, they're going to join together and cause problems.

And so then to prevent that, because it's such a dangerous thing for the body, it has this response mechanism to jump in there and get these things, either kill them and get them out of the system or get them taken care of, and they literally just, you know, knock them out because, having them stick together is not good in any part of the body.

You think about, Alzheimer's. Is the brain so closely related to, diabetes? Because that is just the belonging together, the proteins in the pancreas.

And so it's it's a very similar in that regard. You don't want them sticking together anywhere in the body, basically. Right? Not in anything or in. Yeah.

And so the, the body's got all these amazing ways to, you know, overdo it over here. And then it jumps in and, and does this. And where we get out of sync is when one of these processes just goes awry and it, you know, it stays on and on when it should have shut down.

And that one, the most common one is that I think it's chronic inflammation still. Is there. Are there any other, exciting research studies or any other science that can point and help us understand a little bit more about what's going on with Manaphy?

There are there is, DNA, which is interesting. They looked at the double strand DNA breaks, which are the hard ones to fix, because one side of the double helix can't just, mirror the other side when both strands are broken, so it's hard to fix.

And that one, showed substantial improvement when analogy was part of the protocol, basically.

Future Studies and Closing Remarks

And so that was that one range from about 15 to 35%, depending on the subject. But everybody had that much less double strand DNA damage. And then I'll just add that that double strand damage is why it's a lot of the reason that people have, trouble recovering from cancer therapies because they're there's a lot of damage, collateral

damage, essentially, of course.

And so, getting the double strand damage to repair of is just huge. It takes a long time. So protecting it is also really important. So important. Yeah. This is so fascinating.

I want everyone to make sure they know where to find out more about nano V and this technology and all of the benefits that they can get from it. And also about you.

So what can you say? Can the website. Yes. And three corp.com and g3corp.com. And what else can we look for on the horizon. Are you guys planning other other studies.

Are you do you have new devices coming out. What's the future of Inc three. We don't have new devices coming out anytime soon. But we do have ongoing studies and, human trials have been done, to some extent.

For example, looking at do the fly on and saliva, because that's a good indicator of the, the body's ability to, you know, respond to oxidative stress. Right.

Yeah. And so, those that those studies have been, I should say, the pilot studies have been done great results. So that sort of the next phase is the human side of things.

But the first phase is not yet published. And it's, it's just tremendously exciting. The results were shocking to the researchers that they could get the denature approach.

And you don't expect to recover them, especially the major proteins. Wow. When you get them coming back to life, that's impressive. And so we're very excited about this.

It's just everything takes longer than it seems like it should. Oh, the snail's pace of research. You're telling me. I know how that goes. Researchers love the research part.

They don't necessarily like the things they have to jump to to get things published. And so, anyway, Yeah, that part's exciting. There's more on the horizon there.

We've got more water science coming out as well, which is only exciting to very small segment of the population. And it's those who follow Gerald Pollack. Yes.

And this one article, it's in the journal water. It's a great article. It's just so involved in, you know, the areas of water science that are quite esoteric to me at least.

So not necessarily the water science isn't necessarily so human readable. However, we did research that because we want to verify that we do what we say we're doing.

It's always a good read, of course, and then verifying that it has the impact on humans, which we did a long time ago. And then, also looking at the proteins themselves, because in a human you can't measure the proteins.

As I mentioned, there's thousands of them in a cell. So that's much smaller than what we can study directly. And so you have to study the proteins as well.

So that part of the explanation for how exciting that all of this is happening and we're learning more about cell function, about protein function, about the role of water and how the water lines up.

And just these, these like small things, literally mini itty bitty microscopic things. But how fundamentally important they are to our health and well-being and certainly to our cognitive function.

So, Rowena, thank you so much for I, I've learned a ton, going through the resources that you sent me. And I, you know, that's part of what makes me excited about being in this, in this work, is that there is still so much to learn

from each other and in the future, from the science, from the technology.

And I just really appreciate the work that you're doing to help others and to advance all of this. Well, we are very good about getting information out to people, because we, we want to share that information but not unloaded on people.

And so, with, you know, if people are interested, then, just let us know and we will, we'll be sure to get that out. And actually, the landing page for that, if I can just remember what I said earlier.

But we'll have more specific information on the landing page, for Alzheimer's disease. So it's more targeted is A3 corp.com/edu. Great. Excellent. And adding adding will put you right into the more relevant information.

And we put together information from different parts of our site including the preview video. Oh how exciting. Yeah I want everyone to go over there at the very beginning.

Excuse me, but everybody, thank report.com/indy and we'll make sure that's in the show notes. So people can just click there and head on over to ang 3.com.

And ng three corp.com/ad. We'll make sure that's there. So everyone can can get easy access to this really helpful information and learn much more about what's possible.

Yes. And we only send out, valuable information. We don't. You know, I ask you every other week if you want to buy or something work that way. So if you got if you sign up, you're safe with us.

It's really a pleasure to be working with you. You've shown me, like, your integrity, your dedication to the science, that this isn't just about selling people something.

It's really about educating and informing and letting people know that there are options and there are things that we can do and that there is access to devices that can really move the needle, the brilliant things that can be done.

And it doesn't matter what the stage is, there's really so much that can be done. And, the main thing is to you don't have the positive attitude and just that, the intention of the upward spiral.

Exactly. We're going to thank you so much. It would a positive note to end on, it's always a pleasure to be connected with you, and I can't wait to get this information out to all of our attendees.

Oh, thank you so much. And thank you for hosting the whole summit. It's so valuable and we really appreciate all. Thank you. That means a ton. Thanks for being.