

Caspar (00:00):

Did you know that light can be used to target and destroy disease cells with remarkable precision? Today's guest is an educator, author and physician specializing in integrative and naturopathic medicine for complex illnesses and cancer. With decades of clinical experience he's, led groundbreaking research on IV and integrative cancer therapies. This is the Story of Photodynamic Therapy with Dr. Paul Anderson. Dr. Anderson, so glad to have you on.

Dr. Paul Anderson (00:28):

Thanks so much for having me.

Caspar (00:30):

So I read that like myself. Your father started as a traditional physician. Your mother was also in medicine As an RN, how did you get into the wacky world of naturopathic medicine? <Laugh>.

Dr. Paul Anderson (00:43):

<Laugh>? Yeah. It's a it's, it's a story. Yeah, so I came from that kind of very traditional background. I am the only integrative naturopathic practitioner in my family, still to this day. Everybody else took the other route, and that's fine. So I was the shortest version, 'cause I'm old enough to have a long version, is I was pretty much on track to do the same thing. Mm-Hmm. And in, in between university, I, I worked in medical laboratories, et cetera, and just kind of thought, well, I'll go along down that road. And then I actually, at one point I had my own lab. I was, I owned and ran, and then we started to have a family. We had all these little children who are grown adults now. And the older ones started to kind of get sick a lot as children do.

Dr. Paul Anderson (01:45):

But we were sort of in the revolving door of childhood illness. And my mother, actually, the the nurse said, you know, I know this naturopathic doctor and he works with children, and you might wanna talk to him. And at first I thought, oh, that's crazy. You know, why would I do that? But then, you know, I, I gave him a call and I said, well, my mother knows you, et cetera. And I said, my daughter's having, you know, this kind of chronic issue. And, and as soon as he started to talk to me, I realized number one, he, he knew a lot. He, he knew, you know, all about what we'd been through with the standard treatments and everything. And he had a lot of great ideas. So then I started to take my children to see him. And I I would be there.

Dr. Paul Anderson (02:32):

And I just thought, well, this would be a really interesting way to practice. Very different from what I was used to. And so then I started to see him myself, and we became friends. And that was a very long time ago. So then I, I sold all, all of my businesses with, with five very young children. I'm still married, by the way, to the same person. Same person. And she supported me going, going back to medical school. And it's it's been a wild ride ever since.

Caspar (03:06):

Oh, I'm sure. I mean, it's, it's wonderful to have that support 'cause I feel like I've spoken to a lot of doctors conventionally trained, and they always have that inkling that I feel like every doctor goes in with this bene benevolent kind of wanting to help people. Right. And then you go into the conventional realm and you feel a little hand tied at times. Right. Your options are very limited. You're trying to help someone, but you're seeing them not get better. Right. And then the, the, the thing is, you just spent a lot of time in medical school, school, a lot of money there to go back to a whole other medical school that

most people would say you're crazy for even doing it. Right. I mean, you had a support system, but that's a big leap, right?

Dr. Paul Anderson (03:46):

Oh, yeah. Yeah. No, it's a huge leap. And I think whichever pathway a person takes, you know, whether they sort of directly go there, or as a lot of my colleagues and, and even students nowadays there's the other pathway of starting in one end of medicine and realizing they'd like to do more. And then they kind of have to learn a whole new thing. It, it's, it's a culture shock either way. Either way you do it. Yeah. Yes.

Caspar (04:16):

It, it would be really nice if somewhere in conventional medical training you are at least brought up to the idea of naturopathic. And given that sort of, before you go through everything in medical school, because it, it, it is the crux I find of trying to get more naturopathic doctors out there. And of course they have conventional training, but, you know, your, your path was really an interesting one 'cause you had the conventional, then you went in after you witnessed the experience that came out the other end with a breadth of extra knowledge on how to really look at the human body and how to reverse disease and optimize health. And along that path, of course, you came across a number of different therapies. And one of them was the, the simple light, the simple thing you know, of light, laser light. I heard you speak at ISLA. I've actually been, I heard you speak numerous times, that is the laser conference mm-hmm <affirmative>. That they have. And, you know, you, you've been using it quite a bit with great results. Where did that all begin? Where is your entrance into photodynamic therapy?

Dr. Paul Anderson (05:21):

Yeah, I mean, that's, that's also a very interesting story. At least I think it's interesting 'cause it goes way back. But I'll tell the middle of the story first. So in, in, you know, 30 some years ago when I was doing all of this training and starting to be a naturopathic physician it, it, it was very much still in the kind of the training and the, the medical traditions and naturopathy that, that we were very aware of, especially ultraviolet light therapies and other types of light therapies that were very common in medicine, you know, 80 to 100 years ago. And we still kind of, you know, learned about them and talked about them, although it was much more narrow than what we do now, you know, nowadays. So the technology of being able to do it was really the limiting factor for quite a number of years.

Dr. Paul Anderson (06:19):

There were, there were not the types of devices we have now and different, you know, applications and things like that. But when we started to get more let, let's call them more modern devices to use both external and internal light therapies that was a interesting sort of renaissance for me because before when I was working in laboratories, one of the things that I did was in medical physics and we were developing light based diagnostics and other things. And so at that end of the spectrum, it, it wasn't really at the human interface yet, but I did a lot of work on the optical physics of light. So through totally a, you know, non-medical pointed at least early in the early days types of development, you know, we were working with wavelengths, we were working with literally corralling light and driving photons in certain directions and stuff like that.

Dr. Paul Anderson (07:30):

And then I kind of thought that part of my life was done because, you know, that's sort of a very specific thing. And we're talking about, you know, probably 35 years ago or more. And so then when all these technology started to evolve especially 10, 15 years ago in the world of laser medicine and then photodynamic medicine a little more broad, we actually, I, I started to look at that and say, gee, we finally have, you know, kind of modern very specifically modifiable devices that we could then take this, you

know, knowledge we have of light and, and apply it towards human health. So that was sort of, there was sort of this break in the middle, but as soon as we had the technology, I thought, well, I could put all this background to use so that, so I had a very quick I had quick adoption to the world of modern light medicine.

Dr. Paul Anderson ([08:30](#)):

And what we started to do in clinically was really two things. One is we had a, a very multidisciplinary type clinic. Our two patient populations were split between advanced cancer and then advanced chronic illness that's not cancer, but, and, and not a healthy population all over. So we already had hyperbaric oxygen therapy, we had heat therapies. We had a lot of intravenous therapies and all, all sorts of things that we did. So adding photodynamic therapy fit in with all of that, because we were already trying to help people on these other levels, sometimes using, you know, the, the you know, kind of determinants of our life, you know, oxygen, <laugh> and light and, you know, heat and all of that. But very, you know, I guess you could say medically. So then we started to add in, we, we started doing endo laser therapy, which is mostly intravenous application.

Dr. Paul Anderson ([09:42](#)):

And because we're already doing all this intravenous nutrient therapy and other experimental things, because we could photo-activate a lot of the nutrient substances and other things, we just started to do that and see, well, would this, would it be worth doing this 'cause it's extra time, you know, a little extra equipment cost more, et cetera. And what we found when we started to experiment with that was if we had somebody, whatever their underlying problem was, we could sometimes get one and a half to three times as much clinical outcome by combining the therapies as we could individually doing one or the other, especially in acute problems. So that was sort of the gateway, and we started to see that. And, and then along with our hyperbaric, we started doing a lot of transcranial light therapy for traumatic brain injuries and memory problems, et cetera. And it just kind of grew from there, really.

Caspar ([10:48](#)):

Yeah. The, the, the, the change in how lasers were applied in the technology has been drastic. I mean, I remember in the late eighties and nineties, my father came back from, I believe he was in UK at the time, studying low-level laser therapy with this large suitcase, right? And he put it down and there was this big diode, and he pressed the big button on the back and it lit up with the red <laugh>. And he put it on my little bruises as I was in like elementary school playing soccer and had like little contusions. And, and he put it, I'm like, what are we doing here, dad, this is crazy. It looks like, you know, there's this suitcase that's for the nuclear code or something that you pop open. And since then, right, it's come a long way because that was pain treatment. He was, he was studying it for pain and, and basically rejuvenation of the skin, skin things.

Caspar ([11:38](#)):

And now we're going way beyond that. A lot of people think laser skin, right? Anti-Aging, you do laser, you know, skin treatments a lot now. But we are talking about something much, much more in depth, and you're utilizing on these complex chronic diseases on cancer. Can you talk about how the, how a laser can effectively start to work on these types of things? Because for the skin, you could kind of understand a mitochondria stimulating a little bit in the epidermis, but when you start to go into these others, some people feel a little bit lost on how laser would work there.

Dr. Paul Anderson ([12:16](#)):

Yeah, certainly. And you know, you and I are speaking from the United States. In the U.S. Most of the FDA approved, you know, light therapy of, of whatever type are for dermatology. There, there's some

approved that they use in ear, nose, throat, you know, conditions. But again, it's, it's mucus membrane, so it's sort of external, et cetera. And then there's, you know, research in other areas. In other countries, it's a little more broadly used, which is why you know, not long ago, everybody would have to go to Europe or Asia to, to find anything, right? Like your dad did. So the, the reason, so in, in America, North America, the doctors will say, well, I know the dermatologists do this, and I know, you know, whatever. But they don't see this whole part in the middle, which is, you know, photo biomodulation where you're using the light energy wavelengths to actually activate a substance and make it work better inside your patient, for example.

Dr. Paul Anderson ([13:22](#)):

So there's this whole part in the middle that's much more common elsewhere in the world, most, most of the rest of the world. So what we do with that in, in the shortest way to say it as possible is, and this is different for each molecule, each, whether it's a medication or a natural substance or whatever. But the idea is that some molecules are structured in such a way that when they encounter certain light wave lengths, they actually become photo activated. And so their ability to essentially do what that molecule is supposed to do when it interacts with a cell, let's say, or your plasma, changes when you put energy into it. And this, this sounds like really far out and weird and all that, but actually there is a whole again, go back to like the most narrow thing, which would be f approved substances.

Dr. Paul Anderson ([14:23](#)):

There's a whole series of photobiomodulation drugs that are approved by the FDA and they're for very specific purposes. But if you look at their structures and then you look at other either drug or complex natural structures, like a lot of botanical isolate, you have this a real similar structure so you can photo activate that. So it's not really that far out, it's just they're used in these tiny bands of medicine so people don't hear about it. So that was kind of in, in my story. That's where I was saying, you know, because we had access to endo laser equipment there where we could put a IV laser in and, and then maybe add something. We started there just 'cause that's the equipment we had, but then it was okay and I did, I took my old knowledge of, you know, of wavelengths and all that and looked up, okay, these herbal isolates or these nutrients or, or these drugs have these wavelengths that they absorb.

Dr. Paul Anderson ([15:28](#)):

So let's try and give that, and then we will have the wavelength of the laser that's in your vein be the same. And by and large, that's where we started to see, you know, all these big increases in, you know ability to have a substance, you know, then be photo activated. So when it reached the target, it sort of like, it works harder, you get more of it, right. So for example back you had mentioned, I was involved in some research. We were, it was human research and advanced cancer. And my part was all of the intravenous and interventional therapies. So just like what we're talking about, this was a little bit before we had some of these cool light lasers and all that, but we found, for example, just one single thing curcumin given intravenously, which it's not terribly stable, so it had to be prepared specifically.

Dr. Paul Anderson ([16:29](#)):

So don't try that at home. But if we gave the curcumin intravenously at high enough doses, sometimes we would get metastases to stop growing, which is a very hard thing to do. Now, sort of a, a limited treatment because it, it, it took a lot of time. It was extremely expensive. But people who had treatment resistant, you know, end stage cancer, they had the time and they, they wanted to do it. Later, that type of curcumin became unavailable most of North America. And so then we could only get a different type. Well, you couldn't give the same doses. So what we do now, if people have it, is we give the appropriate doses that are lower, but we photobiomodulate it. And you can still get more activation of that curcumin by adding its light wave length that it resonates with. That

Dr. Paul Anderson ([17:28](#)):

It absorbs. So, and, and that story could be repeated, you know, into any number of other things that, that we can use it with. So it's, it's a way to get more traction out of it. The other thing which if I'm remembering correctly, it was maybe in one of my talks you heard is we, we sometimes forget also that our blood already has a whole lot of things floating around in it. So some people say, well, why would I do a endo laser and just have the blood run by the laser, you know, at different colors? Well, it's because you have a lot of very active enzymes floating in your plasma, for the most part. You have red cells and white cells, which are actually very active substances. And if, if you're fighting something, the white cells are even more active and they all have a resonance as well.

Dr. Paul Anderson ([18:21](#)):

So sometimes we may just photo activate your blood and your enzymes and you know, your white blood cells. So that's kind of the, that's the interventional, you know, sort of interior laser stuff. The other thing that we do a lot more now just 'cause as you mentioned, the older units were a little hard, cumbersome, <laugh>, kinda hard to deal with is we know more now than we used to about, for example, near infrared light and how far it goes into the body. Mm-Hmm <affirmative>. It used to be thought that, you know, you put a transcranial on like the dermatologist use, and it, it'll get down to the skull and bounce off. Well, now we know it actually goes through the skull and gets all the way in to the tissues. Just like in physical therapy, which is not uncommon. They'll use, you know, near infrared over a joint that's hurting like your dad was doing.

Dr. Paul Anderson ([19:13](#)):

Mm-Hmm <affirmative>. Well, it's because it's going in well near red, gets in a little bit and can do some work near infrared, goes in further. And if you go like to far infrared, that's why they use that as a sauna device because it actually heats your organs up from the inside. So we use a lot of the red light spectrum from red to near in far infrared as a topical application. And it actually, you know, it, it's good for joints and muscles and, you know, healing. But also we use it a lot when we're doing treatments that are focused on the brain, whether it's a cancer or, or maybe a traumatic brain injury, something like that. Very, very useful.

Caspar ([19:55](#)):

Yeah. Those applications, you know, one is obviously not going into the body with the, the, the, the transcranial photo body modulation. It's just penetrating through with no pain, no anything, no real side effects that I know of. Correct.

Dr. Paul Anderson ([20:11](#)):

Yeah. Really none. Yeah. I mean, yeah, any light device, if you leave it on too long or, or you have the power not appropriately applied right. Could problem, but, but appropriately you know, appropriate wattage power and appropriate wavelength. You've got a huge margin of safety. It's just the adverse events are almost unheard of, really. Yeah.

Caspar ([20:37](#)):

Yeah. And I remember when I first learned about the Endolaser from Weber Medical and, you know, started to see it applied, it, it just made so much sense. If you're already doing an intravenous infusion, let's say you're doing NAD and any sort of substance, I have your list from, you know, that you provided us, we're already here. And, and then you're going to utilize, in that case a UV light to photo activate it, you are, you are just becoming, you're, you're basically creating a more, like, what, what supplements all try to do, make it more bioavailable, make it more readily used by the body. And so it made so much

sense to me that you would just do that with IVs. What, what do you think is the, the, the, the hold back that many people aren't utilizing this, even IV centers and all these places? IVs are all the rage right now. You know, these kind of pop-up places, which I don't necessarily agree with 'cause It's kind of, you know, wild, wild west of do whatever you want, put whatever you want into your body. We don't even know what's really in it. But nevertheless, there's a lot of doctors that utilize intravenous infusions for all sorts of things. But I don't see them talking at all about photo activation and photodynamic therapy. Why do you think that is?

Dr. Paul Anderson (21:53):

Yeah, I think so I'll, I'll answer from clinician side and then also as a, as a teacher. From the clinician side, I think that the barrier to entry is, is a major thing, which is there's a cost, obviously, it's, you know, anything with lasers and goes inside a body, it's gonna be, you know, I mean, it's not as expensive as many medical devices, but it's, it's up there. So there's a cost issue. And then there's also an application issue, meaning if I have a IV center, and like in my clinic where that was one of many things we did we sort of, we, we were not doing like what the pop-up IV places do. We're doing very just therapeutic oriented IVs, very advanced stuff. Well, it's not too far of a leap then to say to the nursing staff or the supervising doctor, here's this device you're gonna, it's like starting an iv, but we're also gonna have this laser catheter in there as well.

Dr. Paul Anderson (23:05):

So it's, you know, it's a, it's an extra step and, you know, you do it a few times and then you're like, okay, I, I get how to do this. That was still something like in our center, we still had to, you know, okay, how do we do it? How do we figure, you know, enough time for it all, all that stuff. But for us, it was only like a step or a step and a half further, right? You go to the average clinic, which is, is doing a more, say, broad based approach to IV therapy, et cetera. And they're gonna look and say, is it worth doing it? Mm-Hmm <affirmative>. You know, is it worth the extra time? Is it worth, you know, having a couple of the nurses do extra training to do this, you know, because it's like they don't know anybody else doing this.

Dr. Paul Anderson (23:55):

And so it's not like, oh, you know, gee, so you see this right now with a non non light, but a primary therapy, ozone therapy, lots of ozone therapy being done. That's a little easier for people to step into 'cause It's sort of a extension of IV nutrient therapy or something. The equipment's a little bit more cumbersome, you know, but then, then you go to light therapy and then you're adding light, you know, on top of all mm-hmm <affirmative>. So it's sort of like, okay, your average IV clinic owner, they probably, if they're not doing ozone, they probably know 10 other clinics doing ozone. They might know nobody doing, you know, endolaser or you know, that heard of it from a teaching side. What I can say is once you're doing it for a while and you kind of get the concept and everything, it seems like, oh, this is, that's not a big deal at all, or whatever.

Dr. Paul Anderson (24:51):

But because the practitioners probably never heard of this as a possibility when they were in school or doing their training or whatever, it's this, you know, it's a dark hole. It's not a step you gotta go across. And, and so first you have to say, why would we do it? Next you have to say, does it work? And then the big thing is, how in the world would I do this, you know, with my patient. So that's why you know, almost every time they have one, I try to go and, and, you know, help out teaching there at ISLA 'cause they're one of the groups one of the few groups that does, you know, laser based or phototherapy training. And what I notice every time we do it, whether it's every year or other year, people are more comfortable with the idea, you know, and you're getting a bigger group of people. So I think that that's, it's not that

people don't like it, it's that they're just, they're unfamiliar and it's like, why would I even do that? You know? I mean, I, that that just sounds, it sounds wild. <Laugh>, you know, to me

Caspar ([25:59](#)):

It throws a wrench in kind of the standard operating procedures of IVs, right? It does. You have to get the fiber optics out. It's a smaller gauge, meaning larger needle. It's, you know, a little bit more cumbersome. Yes. But at the end of the day, you have to, I, I, I believe you have to say what's best for the patient. And I think even if you resonate what's best for the patient and start to see this, this is absolutely something that can improve outcomes.

Dr. Paul Anderson ([26:25](#)):

Yeah. Yeah. A hundred percent. It's, it's definitely worth doing. And I think maybe that was why it was also a shorter distance for our clinic when we were working on it, was we had people who had very high level needs, you know, and the, the more complicated whatever they're dealing with in their health is the more these types of things become critical for, you know, a lot of them. So I, I think, you know, it's on a number of levels, but a lot of it is just awareness and, and then the the technical step you have to figure out. Yeah.

Caspar ([27:03](#)):

Yes. It, it, it, it's always a little bit challenging to add something new to people that, you know, are used to doing a certain way. But, you know, one of the things that a lot of places are looking at in the whole healthcare field is precision medicine, targeted medicine, right? And most of conventional would say it's a targeted drug for your, you know, problem. Whereas here, you're, you're utilizing, you're utilizing photodynamic therapy to precisely target disease cells and spare the healthy cells in tissue. Can you talk about how that works?

Dr. Paul Anderson ([27:37](#)):

Yeah. So targeting or targeted therapy is we, I, I think in probably all the world, it's, it's most commonly known, like you said, oh, that's like a targeted drug, like a biologic drug that targets a receptor or pathway or something. Which that's true, certainly. But when you get to what I call these physical level types of treatments, so that could be hot or cold or oxygen or light wavelengths, et cetera, you also have a, a natural targeting that can happen. So the, I'll try and pick a simple example. There is a similar process that happens between normal tissue and tumor tissue or tumor bed, and they could be right next to each other. But if you manipulate, for example, the oxygen in either of those beds or light wave length to some degree, you get a different outcome from those cells.

Dr. Paul Anderson ([28:55](#)):

And it used to be, and used to be, wasn't that long ago, you know, a decade or a little bit more, there were big concerns about let's say between a tumor bed and a normal tissue bed. There were big concerns about, say, red near infrared light or oxygen. And the tumor bed thinking, well, it does this with normal cells, which would be, you know, helps 'em heal, helps 'em grow. Well, we wouldn't want to do that to the cancer cells. Mm-Hmm <affirmative>. True. That's logical. But then what the science has shown, and again, maybe especially the last 10 years, so it's, this is another real big hill for people to get over, often clinically. The sciences showed, well, that's true. We wouldn't want to be promoting growth and strengthening tumor cells. But indeed, some of these physical or physical chemical actors, whether it's light or heat or oxygen, they actually affect them differently.

Dr. Paul Anderson ([29:56](#)):

So a normal cell might get stronger. Certain cells in the tumor bed may actually be weakened by that same thing, and they're all, they're right next to each other, right? So, and that's been a lot of the, especially the last, I would say, seven to 10 years drive of a lot of my education is especially integrative clinicians who are likely to use these therapies to update their knowledge. So they realize, oh, actually these cautions we had about, you know, certain light wavelengths and cancer were logical when we didn't know what we know now. But now that we know that they affect the tissues differently, we can actually give one treatment that makes the healthy part of you healthier and weakens the cancer so that maybe the immune system has something that can do there. And that, that's, that's a huge paradigm shift even for the integrative community. 'Cause like I say, a lot of that science around no one, no one really was looking, you know, to say, well, we're really pretty clear on what normal cells get out of this <laugh>, but we haven't looked at what cancer cells get. And, and they're different.

Caspar ([31:11](#)):

Yeah. And I mean, you, you heard that at the conference. There were a lot of questions from that crowd there in ISLA about that. Are we really fueling, you know, the cancer cells in this? And so there, there is this paradigm shift to understand how photodynamic therapy works within cancer. But I think the other thing I took out of that is that we have many more cancer cases. Have you seen that increase over the years for yourself? And also the complexity of those cases? Yeah.

Dr. Paul Anderson ([31:42](#)):

Yeah. I think I think that there, there certainly are more cancer cases just globally speaking, there's more pediatric cancer frequency. There's more adult onset cancer frequency at younger ages. So, you know, for example, a, a cancer type that used to be more common, 50 or 60 plus years old, and we'd get one out of a thousand would be 25 or 30, you know, now you're starting to see, oh, there's a lot more of that cancer in this younger, healthier group of people. So the, I I think the demographics of how cancer is hitting the population are shifting quite a bit. And, and what I would say just from, and, and I think statistics will catch up with this, but empirically looking at all of the people I work with, not just patients, but also the clinicians who are seeing lots of patients the aggressiveness of either new cancers or occurrences of cancer seems to be much much higher than, than it was previously.

Dr. Paul Anderson ([33:03](#)):

And so you'll get people that have a recurrence, which some, I mean, no one wants that, but sometimes, you know, in the past it might be, okay, well we, we were successful with these treatments in the past, we'll do this for your recurrence. Now it might be a totally different type of cancer that comes, and it may come at a, you know, real high hot level very difficult to treat. So again, this is where I think having the option to, you know, add in or mix and match some of these other therapies is really necessary 'cause of the aggressiveness of the disease.

Caspar ([33:41](#)):

Yeah. This is echoed by so many people out there. I had Dr. Thomas Rao from Switzerland coming on. Of course he's going with the Turbo Cancer kind of terminology around it. But, you know, what are your thoughts on why is this happening?

Dr. Paul Anderson ([33:57](#)):

Yeah, that's a it just I, I know Dr. Rao and it, it seems like the Europeans are are more likely to use the term turbo cancer.

Caspar ([34:09](#)):

Yes, they are. <Laugh>,

Dr. Paul Anderson (34:10):

We've been, we've been told in North American, not to say that I'm sure, but I, I think if you're looking at a descriptive way to say it, that's what we see. It's this very aggressive kind of, gee, where did that come from? Kind of a, you know, cancer to deal with. And I, I can tell you I'm, I mean, maybe this is a little selection bias 'cause of the people I normally work with, but the clinicians I know who've been treating patients with cancer for more than 10 years will definitely tell you there's something very different about the way cancer occurs now. Not for everybody, but in many cases it's, it's like, it, we didn't know anything was going on, and then boom, it's, it's there. Maybe it's already stage four, and it's just, you know, going going crazy. So the word turbo actually does fit.

Dr. Paul Anderson (35:04):

So I, I think that I, I think there's a number of things. One of the things I, if you look at what would be different, because humans have been here for a long, long time on this earth, what would be different about what affects our health? Because, so we've had the same gene pool that of course, evolves and changes. But, you know, my my parents have passed away. They'd be about a hundred now, but they, they lived a long time. But my parents, you know, to me covered a, you know, about a century of time mm-hmm <affirmative>. The difference, the, of their childhood to say my children or grandchildren's childhoods over a century, three is a hundred years ago, there were almost no new chemicals, new toxicants, et cetera, compared to the tens and tens of thousands of them that we have now.

Dr. Paul Anderson (36:13):

And although our genetics are very similar, the epigenetic load on us, meaning the stressors and all of that, which toxicants can be a part of, it's not even the same world we live in now. You know, it looks the same <laugh>, you know the nutrient density of food was better when, when they were younger, you know all of these things. And that's a very short amount of time. So the human body has had a chance to evolve and change in a hundred years, certainly. So I think that all the things pressing on the, the human system, and this is not the, there's, so there's a small percentage of cancers are genetic, and the rest are all the other things. But what controls our resistance to cancer is highly genetically coded. We have a lot of, you know, resistance genes and resistance processes in the body and all of that.

Dr. Paul Anderson (37:12):

And if we're beating on them, you know, from a toxicologic point of view, eventually we become an easier target, whether it's for, you know, chronic illnesses or cancers, et cetera. So I think that's a big part of it. And it's like, well, you know, why would it be different 30 years ago to now actually the level of toxicity in the world is, is not lower than it was 30 years ago. It's more pervasive. The level of food supply that is altered much more pervasive now than it was 50 years ago, certainly. And all of that. And then, you know, you could add in the during from 2019, so COVID-19 got its name from 2019 from then until now, but especially 2020 when we kind of figured out, oh, it's here, and all of that. And, you know, up through the bigger waves of the earlier variants and all that.

Dr. Paul Anderson (38:18):

There's two things I think that are, that can't be, you know, left out of the calculus. One is that disease as a viral vector disease, E even if you just looked at it from the point of view of trying to treat people who had it and keep them alive and off ventilators, it obviously did things very differently from other viruses we've had. Now, it, it's, it's grandparent, the sars, the SARS1 killed people so quickly it didn't have time to spread. I mean, it did spread, but it, but you had these pockets like Toronto and places SARS-CoV-2 had the ability to get into, people start messing with their immune system and have it be spread and they

didn't die. And then those who did die, it was later, you know, and usually from other problems they had. And so what we noticed in treating patients during that time was if we could keep their immune system from going too far off the rails mm-hmm <affirmative>.

Dr. Paul Anderson ([39:22](#)):

They would not need to go to the hospital, which was the big goal, they would not need to be on a ventilator. And in, in cases where so I I, because vitamin C was tried in Wuhan and actually did work it, and that became very controversial, but people were interested in the US. So I, I wrote a paper on because you might guess American hospitals don't give a lot of IV vitamin C, right? So I wrote a a a, anybody can do it paper on this is how you, if you wanna do that, this is how you do it. And I did throughout those bad years, you know, I would have consults with, with ICU directors, most would not do it. And it wasn't because it was a dangerous treatment compared to what they're doing, it's because they didn't know if they'd get in trouble or something.

Dr. Paul Anderson ([40:11](#)):

Right. But I would have families that would threaten to sue the hospital or something, you know? And so suddenly the ICU director is very friendly and I tell them what to do. And, you know, and this is, again, this is just my numbers, but anybody in an ICU is on a ventilator that we got added into their therapy, IV vitamin C was able to get off their ventilator and come home mm-hmm <affirmative>. And there's, there's instances. One, one guy got home and wrote a book. He was the only person in his state system that got off a ventilator. You know, and maybe that's a crazy coincidence. I don't know that's been seen it, it was published by other people that it did work. So all that to say that part of the reason that worked was because it just, when you're that sick, it kept your immune system from just either wildly going too high mm-hmm <affirmative>.

Dr. Paul Anderson ([41:05](#)):

And, you know, giving you all the inflammation that kills you or going so low that then you get all these other infections, right. And all this business. So I think COVID itself as a disease really messed with the immune in, in humans will, your immune system is how we resist cancer. So that, that might be one thing. Mm-Hmm <affirmative>. And then I think, you know, it's not a, a terrific logical leap. And there's been papers now published about this that if, if then we, you know, do what we normally do for infectious disease, try and mimic it, you know, by a vaccine, and, and, and if that mimicking goes a little too aggressive in, in the direction, we don't want it to, you know, maybe that could also throw off the immune system. And you know, what most people will say is, well, how would you know the difference?

Dr. Paul Anderson ([41:53](#)):

Now we can tell a little difference, but I think it's a little of both. You know, if you look at like the heart data, it's like, COVID causes some heart disease. Vaccine causes some heart disease together maybe not so great. It's kind of the same for immune system disruption. So I think it's like we were on the precipice from all the toxicants and all these changes in our environment of the last century that are really crescendoed and we needed, we didn't need this. But what happened is we had one big immunological event in the world that sort of pushed everybody, you know, way out of balance. So it, you know, and that could have been something other than COVID, but it just COVID is what happened, you know? Yeah. So I think it's, it's all the above and you know, we we're in the middle of it right now, we have no, we can't look in the crystal ball and see, you know, where things go, but it, this is the new reality we have.

Caspar ([42:50](#)):

It is, and, and we still have no clue how it'll play out in the long term. Right. It's, it's a complete experiment in some ways, but it, it, it does make sense when you say you have a very high toxic load,

meaning your biological terrain is kind of wrecked, and then you add in an immune system that's gone completely haywire, either over autoimmune, you know, or just under, and you just get, you're gonna have a perfect storm for things like cancer to grow at a rapid rate. Yeah. Right. So those two, I think we're seeing the outcome of that with these types of cases. But you know, there, there are so many other treatments out there and I wanted to tap on not just photodynamic, but the synergies with other things you're doing. Yeah. You mentioned, of course you're doing it with IVs, you're doing hyperbaric chamber. Are there other elements? Are you using like ozone? Are you, is it all of it really in the synergy to the person and personalized?

Dr. Paul Anderson ([43:43](#)):

Yeah, it, it's, it winds up being, well, there's, there's a, there's only so much time a person has also for, you know, 'cause you could do therapies all day long. Every day. You could. Yes. so the job really clinically is to say, okay, you're, let's say you're nine out of 10 sick here and, and we have to get this under control. What are the highest value things we could put together to help you here? They may not be appropriate to do when you're two out of 10 sick, right. and so that's where, you know, maybe a combination of we get you out of the hyperbaric chamber. Your plasma is all saturated with oxygen, your cells are saturated, happy and we start your IV and your IV with some endolaser and then we bio activate whatever your acute problem is, treatments.

Dr. Paul Anderson ([44:37](#)):

Well that's a great, you know, kind of synergy way to go. You can also, depending on what's wrong, it could be we heat you up first. We do some hyperthermia at first. Mm-Hmm <affirmative>. Do these things. And then, you know, let's say all goes as planned two weeks later you're way better, but we wanna make sure you heal well. Well then we might do surface treatments. We might put you in a near infrared light bed and have you doing that and have you taking oral things, you know, that build up in your blood, et cetera. So yeah, that is, a lot of it is the synergy is available with almost anything that you can conceive, but you have to match it to the degree of trouble the person's having. You know this does bear stating, 'cause it worked out really well from some research during, especially the earlier variants of COVID where people were still getting a lot of cardiopulmonary disease, a lot of lung problems, heart issue.

Dr. Paul Anderson ([45:38](#)):

There was a theoretical paper about infrared light therapy to the chest that came out. And then somebody saw that at a hospital in the US which I forget the name now, but hospital in the US and they did a, a human trial with it 'cause they had people in the ICU and they made they did a blinded trial. So they made this light vest and you just, you put it on like a vest and the light was on the insides. You couldn't tell if it was plugged in or not 'cause it was, it was blinded to you from the outside. And what happened was the people who got the therapy and then half of 'em just got a sham therapy. They put the vest on with no power. The people got the therapy improved faster, more likely to get out of ICU got out faster.

Dr. Paul Anderson ([46:31](#)):

The same thing we saw with vitamin C IVs. And that was very remarkable. And at the same time, this is why I say it, fortunately it worked out because we had a lot of people not leaving their house. I would tell people, you know, so I might have seen them and done an IV at their house or something, or I might have talked to them on the phone when they were acute. I would have them order a red near infrared pad 'cause they didn't make vests for this, you know, online mm-hmm <affirmative>. And I would just say, get these parameters, this much wattage and the, these light wavelengths and just get it and either wrap it around your chest or do one side, do the other. And we just mimic what they were doing there. Did it two, three

times a day and had a large number of people with acute COVID stuff really not need to go to the hospital, be able to, and they were doing other things, but have that to help them treat at home.

Dr. Paul Anderson ([47:30](#)):

And that really, it was like, it was something they could do. They could order it, you know, and get it delivered their house. They didn't have to go anywhere. And it was a very powerful treatment. That and, and, and with other body parts too. But the lungs of course are the most critical early on. So, you know, there, there were a lot of things like that and, and someone would say, well, I can't go in and get IV or I can't do this. Well, if you're, let's, let's say there was a botanical extract that could be photo activated in the red near infrared spectrum. You can take it whatever amount of times a day to get your blood at a steady state, it's still going to activate because, you know, you don't need it intravenously. It's still, it's still gonna be beneficial. So you could do synergy, you could do it at a lot of different levels. And I, and maybe it's just 'cause COVID gave me much more awareness of the utility of, you know, home treatments. But I, I prescribe home light therapy to lots of people. I mean, keeping in mind my population's not terribly healthy, but <laugh> I mean, I wind up using it with a lot of people now. Yeah, yeah.

Caspar ([48:40](#)):

No, I was gonna ask about that because you have all the home devices now. You have red light panels, you have red light beds, you have infrared saunas, you have the endolight, you know, that goes into the arterial veins. You have the helmet. You, you have all these things. Are you an advocate, not just for those that are going through treatment to synergize at home with that, but for people for prevention and optimization? I mean, should this be used by the population more and more? Because we are in a very toxic world, we are kind of seeing more and more things that are coming at us that are detrimental to us.

Dr. Paul Anderson ([49:15](#)):

Yeah, I think, I think on you go to the whole other end of the spectrum for prevention or optimization. E even in, you know, you go pre-COVID, it's like we've divided time into pre and post COVID now. But before COVID I would very commonly try and get people for prevention to have say far infrared sauna units and things like that. Mm-Hmm <affirmative>. Because you, you, it helps you to move toxins through it. It gives your mitochondria a lot of energy, you know, all the good things. And we would do some other topical stuff, you know, there was less available. We do some topical things. Now if, if a person can do far infrared, that's great. If they can't or it's not practical or whatever it is, it's not hard to get a reasonable quality red near infrared matt, have it cycle through those two colors.

Dr. Paul Anderson ([50:13](#)):

That's all you really need. And, you know, you can lay on it and read or lay on it and take a nap or whatever, and you can do, do it once or twice a day. It will get deep enough to help get your mitochondria woken up. It helps to change the oxidation reduction state in around your cells, which then helps you move junk outta your body and, you know, all that. So I think, and especially now that there's so many, and now there's a lot of kind of questionable devices in the world, so you do have to be careful about quality. But, but there is also some really good home devices that people can get and use. And as we talked about, because it's so it's so benign as far as, you know danger, adverse event, things like that. It's like, you know, why not? I mean,

Caspar ([51:05](#)):

And like you said, the beautiful thing is this is light that our, our body absorbs utilizes, it benefits from, and we don't really need to be doing anything. You could be sitting down reading a book in the song, whatever you need to do, getting that light, you're not gonna feel it really right then, but it is beneficial.

So it's, it's not one of those things, like even with peptides, you have to inject yourself every day and, you know, do all these crazy stuff and mix it up and, you know, you suddenly feel like you're taking steroids or something. And it's illegal, but it's, it's a little bit larger jump than just laying down on something and reading. Exactly.

Dr. Paul Anderson ([51:41](#)):

Yeah. Yeah.

Caspar ([51:42](#)):

A bit easier. I wanted to ask you about where you see this whole industry of photodynamic therapy lasers going in the next five to 10 years. Do you see anything, or do you just see costs coming down and more adoption? Or do you think there are still some great advances around the corner that, that we'll be utilizing very soon?

Dr. Paul Anderson ([52:06](#)):

Yeah, I think all of the above really. I, I think as segments of the population, so let's say North America, you know, start to adopt more light therapy. And so clinics are using it more and there's more awareness and training that does help the technology. And both in it becomes more affordable. But also you can get technical advances because you either you can fund research or there's more people looking at, could we do this for this, you know, patient population. Also because it's in, in North America, more of an emerging therapy outside of dermatology, it's an emerging therapy. There's a lot of research in very specific patient disease areas, et cetera, that could be piggybacked on or exploited that's already happened. You know, and then that would lead to more use, more research, et cetera. And I, I mean, I do hope, like, like other things I do hope the, the bigger world of, you know, the standard medical system starts to use it more because again, it's like, it's not a foreign idea, right?

Dr. Paul Anderson ([53:27](#)):

It's the application that's foreign to them, kinda like you see with hypothermia, you know, it's, it's starting to get more trials and it's like, okay, we've used this before. It's a slow entry. You know, so it's all us integrative people who do it first, you know? Right. But I, I really hope that there's advancement in making the technology easier to use. Just like you were saying, your first unit that your dad brought home, you know, it's like a small car. Now we can do the same thing with, you know, something that doesn't weigh anything that small. Yeah. Same thing 10 years from now, you know, we should be at a whole different level as far as technology and price goes, and then adoption is really, the more people doing it, I think the more helpful it's gonna be. Yeah.

Caspar ([54:17](#)):

Yeah. And again, I think the results speak for themselves. You may have a conventional base that wants to stick to pharmaceutical surgery and say anything outside of that, but when people start to experience it and start to become frustrated with the results they see in the conventional realm, especially for things like chronic disease, then you, you will see more and more, and I'm already seeing it, right. Every year ISLA gets a little bit busier and every year things get a little bit, I think more accepted in the whole realm of it. You've authored a number of books on Can Two Books on Cancer Cancer Therapies, one, and you've also co-authored with one of my favorite authors, Jack Canfield. How did that come about? I actually have this book right Behind the Success Principles that really was a, a got me involved in self-improvement. But how did that come about?

Dr. Paul Anderson ([55:08](#)):

Yeah, that was, so books I had published with Dr. Mark Stengler, a book called Outside the Box Cancer Therapies, where it was actually one of the first US based books where we put photodynamic therapy, you know, in, into some of the other things, you know, for cancer. And, and somewhere in, along there Canfield was doing anthology. And I did a chapter, which was basically my, it was a 20 year span of what got me into integrative oncology and what I learned over those 20 years, which was essentially learning by failure for the most part, but mm-hmm <affirmative>. So, but it's much more it's much more happy than that when mm-hmm <affirmative>. It ends well. So anyway, so I wrote a chapter for, for that particular book. And then in and along all that time, the second cancer book was I really realized that there was a need for more of a support resource for the mind body connection and what to do when you get a diagnosis that you don't want, like cancer.

Dr. Paul Anderson ([56:27](#)):

And the worst thing for being an empowered, you know, patient is to be disempowered by a horrible diagnosis or, or be a loved one. So that book is all about, you know, not, not ignoring that you have a bad diagnosis, but essentially how to become re-empowered as a patient, all that. So it sort of was a good follow up from Jack Canfield's the work I did with him. And then there's, I've written co-written textbooks and other, you know, things that only only doctors wind up reading. So, so I, I run in my spare time.

Caspar ([57:03](#)):

No, that's wonderful. Do you have any books planned for the near future?

Dr. Paul Anderson ([57:08](#)):

There, there's one being worked on, which I don't know how long of a lead time that is, but it's similar to outside the box cancer therapies. But it would be for chronic illness because we, we have this chronic illness epidemic and want to do something similar there.

Caspar ([57:25](#)):

Oh, amazing. Can't wait for that. Where can the listeners learn more about you and connect with you?

Dr. Paul Anderson ([57:30](#)):

Yeah. the, so I have a lot of outlets of things I do. Biggest one is I have a YouTube channel DrA-Online, it's patient education based, but I have a hub website because otherwise I'd be giving you 11 things. Just, just D-R-A-N-O-W, DrAnow.com, and then the YouTube link and the practitioner, everything's on there, so.

Caspar ([57:57](#)):

Awesome. Well, congrats on hitting a hundred thousand subscribers on YouTube. That's, that's big. That's, you're now an influencer. You are officially, officially

Dr. Paul Anderson ([58:06](#)):

I made it. Yeah.

Caspar ([58:08](#)):

<Laugh>. And, and thank you for all your work and everything you do and coming on and sharing your story. It's really appreciated. And yeah, hope you come on again sometime in near future.

Dr. Paul Anderson ([58:18](#)):

Thank you very much.

Caspar ([58:20](#)):

And as you heard Dr. Anderson, go check out his website. That's Dr. A ... DRANOW.com. He's also on Instagram, Twitter, Facebook, very social <laugh> Links to all of this will be in our show notes. And until next time, continue writing your own healing story.