Photodynamic Therapy: Explore This Innovative Cancer Treatment Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and Dr. Weberu2019s Background

Dr. Weber, it is such an honor and pleasure to have you on this segment of Cancer Breakthroughs Summit. Thank you so much. Thank you for inviting me. So. So, yeah.

Just want to let everyone know that Dr. Weber is somebody that he's leading the field. And photodynamic therapy photobiomodulation is truly a pioneer of the modern laser therapy.

And there's a lot of people I wouldn't say a lot of people there are some people that do the the research on the universe city level. But to bring it into the practical, the the clinical aspect, Dr.

Weber is really leading the field in the work and the world for that. Dr. Weber, he's been working at, say, just a little bit about the background. Dr. Weber has been working as a medical director in Germany for more than 20 years, but it's more than 20 years.

It's isn't 30, 42. 33. 33. Today, he manages three medical centers for general and internal medicine, pain therapy and naturopathy, acupuncture and photodynamic, tumor therapy.

And besides his medical degrees, Dr. Weber holds a diploma in biochemistry, which made him a decisive contributor, which made a decisive contribution to the research and development of the new laser technology.

As president of the International Society for Medical Laser Applications and coeditor of several international medical journals, his focus is on research and publications of new methods.

For this purpose, Dr. Weber collaborates with numerous international institutions and universities. The patented Weber Needle Technology, which I use in my clinic, which was developed by Dr.

Weber himself, allows us to apply highly focused and efficient lasers of different wavelengths for the benefit of our patients health. Well, so this is this is the kind of technology that I feel is the future of medicine to use light to impact the body and to change cellular function.

And also then obviously go after things that we don't want to have there, you know, such as viruses, pathogens, tumors, etc.. So so this this this going to be an exciting conversation.

Okay. So, so tell me a little bit about what modern laser technology I mean, how what can that do in the body? I know that that's a very broad, broad question.

But if you can just give a little bit of an overview of what laser technology can do for a human being. They are lasers on the market for maybe 30 or 40 years already, and was the first lasers already were developed in 1970 is in Hungary, you know.

And they use lasers first. Yeah. For stimulation of wound healing, for example, some years later, lasers were used for treatment, for pain, improve muscle spasms, microcirculation and everything.

But when, when people hear something about lasers, they always think of the surgical lasers. You know, what used in surgery could insert to cut the tissue, to regulate the tissue.

And of course, there are many lasers on the market for those purposes for how to read dermatology for ophthalmology. So a lot of this are so-called hard lasers and hard and strong lasers.

How Low-Level Laser Therapy Works

You know, they they completely different from what we are doing. You know, we have first of all, we have to distinguish between the strong, hard lasers with which we can destroy the tissue and lasers, so-called low, low power or low level lasers, which have more healing effect on the body.

So this kind of lasers, they bring energy into the body and the energy is used for the body, for regeneration, for regeneration of the mitochondria, to give more energy so used for healing not not for destruction of anything.

And we know today that that lasers have a lot of benefits on the body, especially the low level lasers. And they're widely used in the last ten or 20, 30 years, not only for wound healing, but for so many things in dermatology, but also for, you know, organs and what is very important that also new colors and wavelengths.

What what were developed, you know, at the beginning 20 years ago, we had only red lasers on the infrared. But now we have the full spectrum of colors.

We have blue and green and yellow ultraviolet. So with this kinds of laser, what we can bring in the body, we can stimulate a lot of of healing and energizing processes in the body.

And, you know, the main source of our life energy is in the mitochondria, you know, where we produce our life energy. And we know today that the different molecules or complexes in the mitochondria are so-called for us because they're developed in millions of years in the sun spectrum.

You know, and we know today that especially in the mitochondria, when we bring the light inside the mitochondria, we can increase a lot of energy. And in the body.

So more so-called ATP or know what is our normal life energy and therefore we need the special colors before because the the different chromosomes, they have different absorption spectrum.

If you compare for example with the chlorophyl in the nature in the green plants, they absorb the red and blue light from the sun, you know, in the mitochondria we can see that we need all different colors.

But however, the problem still is the light has to go into the body. But unfortunately, and there are many devices on the market for that when you bring light only from the surface and the body, it will not penetrate deeply enough, especially the wonderful short wavelength like blue or green.

So what we have developed are new devices with which we can bring the light deeper into the body, ideally anywhere, so we can bring it with into the bloodstream directly using specific steroid catheters.

We can bring it with so-called fiber optics. There are needles deeply in the spine to regenerate spinal problems. We can bring it today everywhere in the body.

And that's a new development from the last 20 years. And, you know, the regenerative effects on the body. We call it photobiomodulation and photo. That means we give light and we induce a bio modulation.

But mainly it's the modulation of the mitochondria which provides the whole body with again the low level light. It's a regenerative tool for our body for many, many healing purposes and we want to increase the power of the cells.

We want to to induce healing regenerative processes that the regenerative effect of lasers, what we call photobiomodulation. However, we can also use the same light not for regeneration, for destruction of the bad cells in the body.

Cancer cells, bacteria, viruses and called is not phototherapy. We call it photo dynamic therapy because we induce a dynamics in the body. But this works only if we combine the light, the laser light with the photo active substance, I told you, but already we have chlorophyl in the nature and we have similar products.

What we can bring into the body, maybe on the skin or we can inject in the body. And the good thing is that those

substances can bind to malignant cells, for example, to tumor cells, but also bacteria, viruses, fungi, other microbes make them light sensitive.

And when we then give the right light according to the absorption spectrum of the substance, we can induce the production of reactive oxygen radicals, which then can kill cancer cells or microbes.

So so that's a different what we always have to keep in mind. We have the phototherapy for regenerationand we have the photodynamic therapy for treatment of cancer or bed infections.

And that's something what we have developed in the last 20 years. We have got a lot of experience today. We are happy that we have different photosensitizers We have derivative from the chlorophyl, we call them chlorines We have derivatives from the air molecule, we call them have perforations.

We have other natural substances like cook. You mean the riboflavin? This is vitamin B two. Hyper is seen from St. John's wort plant. So there's a lot of different substances, what we can use in photodynamic therapy.

So tell me a little bit how the what what does a photo sensitized are do so you you do take that orally in a pill or you get it intravenously or you can inject that directly around like a tumor site.

So what's it how does it get into the tumor and what does it do in the body and to the tumors? Yeah. Yeah. So there are different options. Mostly the photosensitive, especially somebody has a deep seated cancer in the body.

We have to inject it and we have to give it in the bloodstream. And that's also an interesting option because we know that later metastasis, what can develop from a cancer are coming from circulating tumor cells in the bloodstream or maybe so-called tumor stem cells.

And what we are doing, we give the photos that we inject them, and then it's in a circulation for a certain time, and then we can irritate the blood, you know, and if there are some circulating tumor cells in the bloodstream, we can destroy them and clean the blood first with so-called intravenous laser therapy with the right wavelength.

According to the absorption spectrum of the photosensitivity. So if we use, for example, Coke, you mean we we need blue light if we use vitamin B to riboflavin, also blue light for precision.

Photodynamic Therapy and Photosensitizers

We use yellow light for chlorophyl derivatives. We would we use red light so we can apply all the different lasers. And fortunately, we have set up the new devices with the full spectrum of light so that we can use them for all different substances.

But when you ask me what is what is happening, first of all, it's in the bloodstream and then it takes always a certain time. It depends some photos and sensitizes the 3 hours of the 1 to 10 hours or one day or so they they can enter into the tumor.

So there are different mechanism that they can enter in the tumor cells. We know, for example, that the chlorophyl derivatives, they mainly bind to higher expressed LDL receptors.

So there is a receptor binding which then brings by and also towards the substance into the tumor cell. There are different other options. For example, the different photos sensitize us like for example, into science in green.

We use them in nano particles like liposomes or micelles. And we know that the, the capillaries in the tumor are different from the normal capillaries.

They have gaps inside small holes, you know, that the bigger particles can enter through the tumor cells, but not in the healthy tissue. And that's very important that we have no side effect on the healthy tissue.

We call it EPR effect. This is enhanced penetration and retention effect. Another option is the there are different ways from induced causes of active transports into the tumor cell, but once, once is this photo, then that has a in the cell.

Then we can irritate and destroy the cell by using the right light. And the most interesting thing and this is just two years the for anemone therapy from chemotherapy because chemo and PDT photodynamic therapy they both have the same effect that killed tumor cells alone.

But you know that chemotherapy kill also kills our immune system and that's exactly what we need for the treatment that when you use photodynamic therapy and you request the cells, you know, and on the damaged materials, then the body can take up the by macrophages, for example, this material this leads or dendritic cells will produce antigens and they will connect with specific T cells and activate them so that the T cells have enough of a secondary effect on the tumor and also maybe on the metastases, which are somewhere out in the body.

And that's the most interesting thing that the photon mimic therapy stimulates the immune system and that's the difference to chemotherapy. And today we just discussed it.

It's a very interesting approach maybe to combine photon memory therapy with different immunotherapies. Yeah, to me that is just the fascinating component because when it's so, it works kind of like a vaccine, but it's it's not a vaccine that you have formulated based upon what you think is there or based upon what was there three months ago.

It is a vaccine that is formulated based on what is in the body right at that moment. And then you activate the immune system to to make it stronger and be able to be more intelligent.

And then it looks at all these fragments of the tumor that you kill and that and then can then produce the appropriate and, you know, create the antigens, you know, the appropriate antibody response to then go and hunt and the rest of the body for wherever that is at.

Exactly. That's the key is a like a auto vaccine. What we are producing, you know, that's at amazing idea. And maybe we we can enhance this process by adding some modern immunotherapeutics, which we use normally to activate T-cells or to prevent inactivation of the different T-cells.

What about the checkpoint inhibitors, for example? What we what anyway are used in normal cancer therapy and that's a wonderful combination and that's something what we are doing a lot of research at the moment is so if we can maybe improve the reaction and enhance everything by combination with special immunotherapy and this is also something else, what we have to consider, we can stimulate, of course, the photos sensitize us which binds to the tumor cells or maybe microbes with the appropriate light or laser light some.

But we also can stimulate this with with autism in general, and we call it sono dynamic therapy, because most of all is subsets of photos of entities that are not only photosensitive, it's a zone of density.

So we can activate them with light and with ultrasound and, you know, just on maybe with one megahertz can deeply penetrate the body, can go through the bones, even into the brain.

And so this is a wonderful combination and the effect is very similar. We also produce oxygen radicals, but also we produce so-called microbubbles, which then let the cells explode, you know.

So that's the modern combination, what we are working on, and that's the new therapy. And another key is that we need enough oxygen in the body. I think everybody knows that that tumor cells can live and grow without oxygen.

You know, they have the different metabolism of the glucose, you know, and and we have to make sure that we have enough oxygen in the body. So we give people oxygen for breathing during the treatment.

We put them in the hyperbaric chamber, or there is also a new protocol that we can mix hydrogen peroxide with

hyaluronic acid and inject that directly into the tumor.

Anyway, what you asked me before we can give the photosensitive, so maybe externally, maybe as a cream under the skin is on Newmarket long time five our clinic is it we can inject it in the body to go deeper and we can also inject it directly into the tumor.

Yeah. And the good thing is. And that we have developed this invasive laser technology device and it's still the only one on the market in the world with which we can use ultrasound guided long needles any size to go deeply into the body to stimulate maybe the product in the pancreas, on the kidney, what we never can do from outside.

And that's the new technology, what we have developed in Germany. And it's so exciting. So when when you bring in that for desensitize or just to kind of clarify the point a little bit, so when you do the photosensitive research intravenously or orally, it then accumulates preferably into the tumors because of the vast hilarity that exist and because they have holes in the blood vessels.

And so then it accumulates more in the tumor tissue. And I and I heard somewhere that it was about 50 times more likely to enter into tumor tissue versus healthy cells.

And then because the photo sensitized was there, that tissue becomes very sensitive to the light that you shine on it. And then when you shine that light on it and you have oxygen in that tissue, it causes it to oxidize, which, you know, chemo's an oxidizing therapy, but this becomes an oxidizing therapy that is very targeted and is not impacting a lot of the other healthy cells.

I mean, it will impact some, but not to the same extent as as chemo. I think that's really the good development from the last years to make the photo sensitized is more specific, you know, that really mainly only completely only go in tumor cells and not in the healthy cells.

One example, for example, there is one substance which is still approved on the U. S. market, the so-called photo free nano, and I use it many years ago, but I never liked that because a lot of the substance also binds to healthy tissue.

Immune Activation and Combination Approaches

And you have always to expect collateral damage, you know, and it makes also the skin and so light sensitive that the people have to stay for weeks in the darkroom after this.

And the new what we have today, chlorine is six or maybe the so-called cyan in green. They are very specific. And then maybe there's still a little bit light sensitive for a day or so.

But we don't have this problems anymore. So that's also a good development from from the last years. And so in the market, I mean, when you think of laser therapy, then you see people out there with red and infra red mostly.

But I mean, the beauty like you mentioned is that you brought the full spectrum of it, you know, and and we recognize I mean, we we are we are living in life.

We're born in light. We we develop in life. You know, we, you know, mitochondria is the bacteria that exist and then light. And so it reasons then that we need the full spectrum.

We need the whole sunlight spectrum and not just the red infra red. So there are then other effects and let's say we, we just step away from the photodynamic there are other effects and of the other frequencies on the body.

And that can be really regenerative and restorative for the mitochondria and other things as well. Exactly. That's right. What you said. No, we are always to think about we are made from like everything every cell in our body is developed into some spectrum.

So everything in the body will absorb something in the spectrum and use it. And especially we can see it in the mitochondria and we know the different complexes where we metabolize the glucose and produce the ATP, our life energy.

We see that the different complexes exactly absorb the light from the sun's spectrum. And this makes a lot of sense because they are all developed into certain spectrum and especially many people work on stem cells today and want to push the stem cells growing.

You know, we speak about general light of medecine and it's this it's the same thing. And that this therapy or this regenerative therapies are working.

We have to bring the right light energy into the cells in the body directly. Not only read an infrared light shining on the skin to induce all the sweat generative processes.

And so so that's the other. So we can and that's a good thing we can use all these different spectrum colors for maximum of regeneration does it stem cells or platelet rich plasma?

What we are doing today for regeneration objective joins on the spinal something and on the other hand we can use all the different colors from the from the spectrum to stimulate the different models sensitize us for destruction of malignant or other bad cells in the body now and that's a good thing.

We can use it in both ways. Some fascinating thing. That it is and as we're understanding it more, you know, using it clinically and you're seeing more and more of the effect and that's that's what's so exciting about it.

Tell me a little bit about you have the green and the red and the the different effects that it has on stem cells. Some you brought up stem cells and and I and obviously stem cells.

We know any time all of us, we want to live longer, our brains want to function longer. And the healthier the tissue we have, the less likely, obviously we are to get cancers.

So healthy stem cells become really important. And I know so people understand that, you know, one spectrum or one part of the spectrum has one effect, another part of the spectrum has another effect, and they're very complementary.

So tell me about like green and red. Yeah, they are complex entry in regards to stem cells. Yeah. So stem cells, stem cell therapy is done also already for many years, you know, and if you look in the literature, sometimes they're good results, sometimes not know.

So it's very different. And now more and more in the last years, you can find new applications and research about laser stimulated stem cells and what are the lasers doing when you when you make stem cells, maybe you'll use cord stem cells, for example.

We prefer autologous stem cells. What we normally perform the on the fatty tissue, you know, so called adipose derived stem cells, but never have side effect because it's your own material.

We inject them in the blood or we inject them in a joint on the spine or something. And then we hope, we hope that they will survive there and grow and maybe differentiate in your tissue or, you know, new catalog, you know, if they show muscle tissue.

But this is a very energized, arising process. You know, we when we want to the stem cells first to survive to grow, proliferate, differentiate this are all energizing processes.

So we have supply them with enough energy that really that this therapy is working and the best energy is light because they have a lot of mitochondria and the mitochondria that deliver the energy that they really can grow.

And so we can use the light what we are today can bring outside and everywhere inside the body to give them the energy what they need and make the therapy successful and the green light.

You asked me about green. A red and infrared has a long history and green light. We know that green light improves oxygen supply anyway. You can compare it with the green plants outside which produce oxygen and it's easy to keep in mind.

So the the hemoglobin can carry more oxygen.

Light, Stem Cells, and Regeneration

Blue light itself has an effect for killing bacteria, but blue light also can enhance the microcirculation a lot because it can deliver free nitric oxide.

What we produce in the body during walking, you know, and not. But nitric oxide normally is bound to have more globin, but when irritated with blue light, it immediately opens up the microcirculation.

So they also we have yellow light which is quite new and yellow has a huge anti-inflammatory. In fact, in the body. We also now have the UV light or ultraviolet light which can itself kill microorganisms, maybe metastases in the body.

But the key, that's the general effect of the different light, you know, when we give it in the tissue or in the blood. But the key for me is always the mitochondria.

Now today, mitochondria and therapy is the best thing. What we when we speak about anti-aging, what you said, everybody wants to live longer and would pay billions, you know, for five more years and good quality of life. No.

So when we look for different complexes in the mitochondria, they exactly absorb the different colors of the sun, the spectrum, red, infrared, we know for a long time.

And new research from the last two years in the stem cell center in University of Johannesburg in South Africa. They could show on one hand red infrared enhances the proliferation of the stem cells, but the green enhances the differentiation of the stem cells.

So there you can only and there's not enough research about blue. But I know in the next time we will also find that the other colors also work in a similar way.

So the key are the mitochondria. The mitochondria they determine at the end our life expectation because we call mitochondria as factories with limited lifetime and in all mitochondria the cells we have a lot of mutation on the mitochondrial DNA and then the, the, the mitochondrial function will go down at the end.

They will die and at the end we will die now. So the key is to keep the mitochondria, especially in general, but also especially for stem cells, you know, and I'm sure that in the next years we can we can do a lot in this field and write new new research work showed that that we can improve.

Also using, for example, intravenous laser therapy to enhance growth factors in the bloodstream cytokines and that we can even enlarge the telomeres, you know, the telomeres that are the small tails on our genes.

What determined their breaking down step by step during our life. And, and you know, when you are born with short telomeres, you die early with long telomeres.

Your from your parents, you live longer. And we have new data that maybe the telomeres, first of all, they will not break down so quickly, especially blue light nitric oxide is doing this.

But we also have seen that they even can go longer. Again, it's so amazing data and that's what we are following

up now in the next study is what we just initiating here. Now.

And that that's also fascinating is that, you know, as we're talking about the two aspects of the photo by modulation, which is a regenerative aspect and then the Photodynamic therapy, which is more of the destructive way we go after things that we don't, that we don't want and where we then bring in photosensitive disorders in order to be able to be more targeted and more effective and kind of reach the target tissue more efficiently.

But then going back then to regenerative, you know, we have stem cells, we have people do PRP like we do at our center and, you know, stem cells. And and then to combine that with other factors like light to make them more effective, give them more energy to be able to and also be able to different shade better using light.

So and I apologize for jumping back and forth, but I'm doing that because I want people to really feel the distinguish you know, how you distinguish between the two.

You know the photo by modulation of photodynamic therapy and how light really benefits both. So let's go back to the Photodynamic therapy. And with that then the key, like we mentioned, is using photosensitive scissors.

So what what are some you mentioned some photos sensitizes like Ackerman, you know, riboflavin which vitamin B to chlorine you have ICG in the non and ice form which I know is a later development five HLA are these kind of the then newer that that is out.

I wouldn't say out on the market but because it seems like you are the one that is driving even though there's a lot of research, but the clinical applications of it, it seems like you are the one driving that.

And is there anything new on the market that's exciting that that that has a promise. Now, what was new in the last two or three years, first of all, is the elite five.

Alia is five amino acid. But this is a top substance which is produced in our own body in the cells, you know, and this 5la normally some molecules are put together step by step and they will form at the end of porphyrin, which then gets an iron and is them.

So five amino level laser level case is the basic molecule for setting up our hem for the hemoglobin, you know, so it's a natural substance. And the key is that cancer cells, for example, you know, they cannot really metabolize to him the five l because the the step, you know, where an iron is integrate it in the powerful molecule which picks up the oxygen in the blood.

This produce enzyme is not working, so it will lead to an accumulation of the precursor, you know, of the hammer, we call it prototype of green portable three nine.

And and what we are doing today, we have now available of five L as a drinking solution and you can drink it and then it will accumulate in the tumor cell, but different.

We know that there are different carriers which bring in the tumor. And so and then in the tumor cell, it will accumulate, but it cannot metabolize to a hemoglobin because this enzyme, which puts iron inside, is not working in tumor cell.

That's a big advantage. So we have a great accumulation, which makes the cell, the cancer cell, extremely light, light sensitive. And then we can stimulate with red light the fiber is used long time from the neurosurgeons, for example.

So we always, before they make the open, the head, you know, evolve or removal of a brain tumor, they let the people drink it. And then that can irritate the open brain with the blue light and see exactly red fluid is sense because you can lose also photodynamic for diagnostics.

We call it PD photodynamic diagnostic and you can make them the therapy, we call it PDT for dynamic therapy. But

they used it only for diagnostic, not for therapy.

But now there are already new publications and they're doing the same thing. What we are already doing for seven years now, they put some interstitial needles in the brain tumors and stimulate with red light for destruction of the tumor.

New Photosensitizers and Clinical Advances

So so lots of effort of memory therapy. And another thing is what we just spoke about it. There is a new development from the university in Rotterdam, the Netherlands.

They have set up a new combination of different chlorine, the other substances, popyrin and this should be extremely effective. And also it's now available as a capsule.

So that's the next step of research, what we can hopefully do together, you and maybe some other centers in America. And I have great hope, you know, that we can because, you know, photodynamic therapy, when you look in the literature, you will find thousands of publications.

This is not an alternative thing. Always an alternative therapy like vitamin C infusions or something. What is not bad, you know, but this is something what is not accepted from the medical world.

But photodynamic therapy is done in many big universities worldwide because and everywhere you can read it that it's the best therapy of cancer because we spoke about it, it gets cancer and it stimulates immune system.

However you can everywhere read, there are the limitation. The limitations are that we don't have all the different laser lights and we are not able to bring the laser light deeply into the body to bring it in a sufficient concentration to stimulate the sensitize and the tumor.

You know, and that's exactly what we have developed. The invasive technology that we can bring really every color which can even not penetrate all the skin close or directly inside the tumor.

So we have to develop all this equipment. And that's the the biggest invention from the last years, I think. And that's can bring us extremely forward.

And I have a great hope and it's always step by step. You know, cancer therapies complicate the best. Researchers work for 50 years on cancer and still we have nothing where we can cure everybody now.

But this can be a very, very important tool. And, you know, I'm I'm working on that because I believe on that because I'm a practitioner, you know, similar like you, I see it on my patients and not make any more experience or laboratory.

We have the patients and we can see exactly on each patient with so many different tumors what is working, what is not working. And that's the big challenge for the next years to get it more and more specific and successful.

Yeah. And obviously, I mean, like you mentioned, you know, we haven't figured figured out the riddle of cancer yet. But we I mean, all the failures that we have, I mean, that those are the ones that drive us to push further.

But having said that, all the successes that we have makes it exciting and makes us want to push further. You know, like, for instance, you know, a patient coming in, this was just a few months ago, you know, dealing with metastatic cancer, you know, liver, gallbladder and and.

Yes, and also another patient actually, the same time you are all over the bone marrow. And they they were told that they were not going to live for another month and they're still around and doing well.

And, you know, they yeah, they come in not looking very, very good, you know, not having an energy and and, you

know, extreme pain and can can't move around and now, you know, back to work and you know living enjoying life but the energy that he wants and and that was because you know they couldn't do any chemo so this was the only option.

And so so it's really those are the exciting things that makes you that that tells you that you're on the right track. But obviously, we haven't we can't we haven't figured out all the solutions so doesn't mean that we can we've figured out how to help everybody.

But at least, you know, this is a big part of the puzzle. Tell me tell me a little bit about some of your experiences, what you've seen with cancer patients and and the benefits and and, you know, what what what you personally experienced because you've treated so many people dealing with, you know, some of the most severe cancers, you know, that are failed from the medical field.

And yeah. First of all, again, I want to emphasize that I'm not completely against chemotherapy. You know, that's very important that people know that that we are normal medical doctors, you know, and not against sometimes we need chemotherapy or maybe we make chemotherapy in the beginning to reduce the tumor burden in the body or not.

And we know also in some cases, like leukemia or Hodgkin lymphoma or something, it can be very helpful. And sometimes I use chemo myself, mostly in a low dose because chemo drugs also can work as photosensitive as then we call them.

Chemo sensitize us. So we can we can make them even stronger with light, but reduce the dose now. So I have not completed sometimes I have patients, they have chemo and sometimes in between they come to me and we make PDT know in some cases sometimes it is really necessary and I don't want to say we have a wonderful we don't need all this.

We can cure everybody with for the Nemec therapy cancer treatment is complicated we know this and also we always have to combine different things, you know, because we are not treating only the disease.

We always have to treat the whole person, you know, and we call it individualized therapy. So we have to use maybe a special diet. The psychology is very important.

Also some alternative things like vitamin C or minerals, or there are different things and they can be very helpful. You know, and and I think also you are using different things, you know, individualized for the different person.

But anyway, the PD is the main thing and what we have seen, for example, and that's exactly what you said, sometimes the patient there in Germany say, oh, terapia that therapy, you're out of therapy.

Now the oncologists say you have everything and go home and and take pain medication and then we cannot do anything. So we always get patients like this.

And of course, these are the most complicated patients. You know, when I get a patient with a small node in the breast and nothing else in the body, this is not difficult to treat.

And the success is very high with our fortunately therapy.

Patient Outcomes and Home Treatment Options

But unfortunately we get patient upon metastases and lung and everywhere, sometimes in the body. But anyway, we always have seen patients with some amazing.

I remember one patient with breast cancer and lung metastasis and hip joint metastasis and ah and of course we can use the different lasers now, we can put needles on the hip joint for lung.

We can, we have special fiber optics to know what the people can, what we can put in the bunker system using endoscope. But in the easiest case, also, you can swallow the fiber optics and can irrigate the lung from the esophagus.

What this is very very effective and there are always patients sometimes where we have really amazing results. However, I want to emphasize, we should not have the expectation that we can cure everybody quickly.

You know, but if we are able if we are really able to give patients maybe a year or two years of more life, and the the great thing is with good life quality and this therapy leads to good life quality.

You know, maybe with chemo we can do same thing now, but bad life quality enough. So that's the most important thing. And when I remember a lot of cases which are really hopeless, you know, especially when they have metastases in the brain, you can't do anything normally.

But now we have indusind in green. What can enter the brain? We have helmets, you know, with infrared light. What can go into the brain? We have ultrasound what we can use on the bones and also on the brain.

Sometimes we have really a stabilization, the stabilization of the process. The patients can still live and enjoy their life. We always see this, but not always numb.

But anyway, what I can say in general, most of the patients or nearly all patients that have an improvement of their quality of life, that feel more energized, they can eat better, they can can move better, you know, and because the laser also provides energy, of course, to the body, what we spoke about this before, so I think that's a huge advantage for the patients.

And obviously you have clinics like yours, like mine that people can go to. But in addition to that, you know, people can they utilize natural so to sensitize or send, you know, like a laser watch that I know that you develop so that people post treatment or if they don't have access to a center that they can incorporate and and receive tremendous amount of benefit where you can then, you know, have laser watch and you treat the blood as it's passing by here, you know, so, you know, whatever cancer cells or whatever pathogens, whatever it is, will then be impacted.

Assets passing by and just circulating. Yeah, that's, that's the main thing when people stay one or two weeks in our clinic and then they go home and then they ask me, well, what can be done to the therapies finished?

Or Can we not do anything at home? And of course, the good thing is that many of the voters and they don't want to even use in therapy, like to cook, you mean or the riboflavin or the chlorophyl.

You know that this is available orally as capsules. So the people can take it at home without any side effect. You can and they're not expensive, you know.

And then one hour after after absorption, you know, they can use, for example, the laser watch and then irradiate the blood, stimulate the immune cells in the blood.

And when the end is cancer cells circulating on the stem cells, they bind to the to the photosensitizer Others, you can clean all the time to prevent maybe development of new metastases and also the laser.

What you give into the bloodstream is energizing. The blood are better microcirculation better oxygenization what we spoke before. So the post-treatment and people who have a brain issue you know after the treatment they can still use the helmet, you know, and for stimulation because the infrared blood can penetrate to certain amount in the brain.

And what I'm also doing may be interesting for you. There are quite cheap ultrasound devices on the market. What a now give the patient that take home and they can take the pills because they don't have the fiber optics needle what they can put in the body but the one make it mega has a zone of device you know, can go 20, 30 centimeters.

So now they'll take home a sonar device to know and can treat themselves not only with the watch, but also with the home. So no therapy. Also, this is a very good step forward.

And I'm hearing from several patients in the last weeks that that enthusiastic, you know, about the success rate and that's also something and it's not expensive you know you can we sell seldom for three €400 is not a lot of money on them.

Yeah that's what's so exciting the you know this field and how it's evolving how it's evolving so quickly and how much research has been done all over the world in regards to Photodynamic photobiomodulation.

It's so exciting. Well, Dr. Weber, thank you so much for everything that you're doing for for driving this technology forward, for making it available to people in a form that that has never been available before.

Thank you so much. And thank you so much for an invitation. But this interview and yeah, I'm looking forward for more great cooperation with you and some other colleagues in the future.

And I'm sure we could move a lot of things forward for our patients. Wonderful. Thank you. Okay. Thank you. Okay, bye.