# Energy 4 Life Podcast

## The Diet Wars



Harry Massey: Welcome to the Energy4Life Podcast, where we explore the future of health and wellness to help you enhance your energy, health, and purpose. I'm your host, Harry Massey, a pioneer in bioenergetics who's dedicated to looking beyond the biochemistry to explore the innate healing power of the human body. Some of our episodes are also hosted by Niki Gratrix, who's an award-winning functional medicine practitioner, and bioenergetic coach. Now we both made it our mission to look beyond conventional medicine and mainstream science to help you to get well and stay well. So enjoy the show.

[00:00:40] So today's podcast is called The Diet Wars. How should you truly eat for supercharged energy and health? Now the diet wars are a very, very interesting concept because I'm sure if you're interested in health, you most likely would have gone right down all sorts of different nutritional plans, tried all sorts of different diets, you know, got confused as hell from the internet. You know, where we started with the no fat and now fats are all the rage. And of course, you know, we're getting some even more interesting things like the all the all-meat diets, and obviously, there's vegan diets, Mediterranean diets, macrobiotic diets on and of course, the Japanese do very, very well, thank you over there, and they're doing something entirely different to what we're doing here. So, um, let's just try and make a bit of sense of, of what we really, really should be eating.

[00:01:45] So firstly, from a bioenergetics point of view, we are entirely interested in its effects, or foods effects, on energy and information. And in fact, actually, I'd say we're also in interested in the effect that food has on the mind and the emotions, because that that really is another form at form of information. Because if you enjoy your food, you chew your food nice and slowly, with love, you put intention into it, it has a much, much higher, – I say it has a high nutritional value, of course the nutritional value

technically be similar – but you're much more likely to get better absorption because your parasympathetic system is more activated, etc, etc. And also, if you, if you sort of can understand or believe in the idea of intentionality, and how the universe, basically how the universe is really a direct reflection of yourself, you can actually direct in a way, you're not quite physically directing it, but the nutrients from food particles, you know, will will be picked up by, by the cells that need them the more it's emotionally tuned in. Anyway, that's a little preamble.

So what we're going to be exploring in the podcast is, of course, why the food that you eat is really important. We're going to aim to resolve a lot of confusion around dies. We're also going to look at three steps that you can use to transform your diet for supercharged health. And here's the interesting bit, you might not realize how you can gain energy from food that has a higher photonic value, or another way of putting in our information terms, and it basically has, you know, much more coherent, better structured information. A lot of you would have heard of structured water, so that may be the simplest way to think about it. But if you are looking at you know, nice, nice, lovely fruit and vegetables, you can imagine that the fruit and vegetables that have a have a highest actually water content, you have a higher information value. And there are also, in a way, there are there are ways of measuring the sort of, the amount of coherent light that is emitted is another way of looking at structure. But of course, that's not an everyday thing you can buy at home. So, but we'll talk about it, we'll talk about it.

[00:04:21] Anyway. Let's get into the first bit. So why is that important? Well, pretty obviously bad diets. They do, kill you, sorry. They do. I know we always hear the stories of the 90 year olds who smoked cigarettes and ate chocolate chip cookies for lunch, breakfast and dinner. But, they are what you call an absolute outlier and generally they do kill you. So, there's all sorts of studies, so for instance, there's a 1993 paper called Actual Causes of Death in the US that blamed diet as major lifestyle factor. Have a guess how much? Half of us deaths! Not a third. Not 10%. Half. 50% of us deaths in 1990 were caused by bad diet. Not old age either. All I can say is – Yes, if you want to die early, eat badly and don't exercise, it's great. Don't sleep, that'd be another good one.

So diet, exercise, smoking, none of those are particularly good. Anyway, your choice of foods can make a huge, huge difference to your energy levels, especially by selecting foods that are energizing. And so we're going to get into later some really, really good practical tips. So you know what types of things you can eat for a longer, healthier life. Also I'm sure I will add along the way all sorts of things that I for fun. And, you know, we

could always go back to that lovely old saying, "You are what you eat". It's still key I think if you remember you are what you eat, and literally, quite literally, you are what you eat, because there's no way you'd be able to replace all of your cells, you know, every – I mean, every cell – Well, they're all replaced differently when they say even bones are replaced over a seven year period, but most cells are actually replaced over even within a year. Things like your stomach lining are replaced within a day. I can't remember what liver is, I think it's around the month or so. But basically, where are the building blocks of these replaced from? Well, it's from food and of course, if you give it the right, if you're giving your body the right information, like i.e. the right blueprint, so it can use those nutrients properly. And this is where things Infoceuticals are really really key because if you feed your body basically the right nutrition while you're feeding it the right information or the right blueprint, and as it goes to rebuild your body, and you're giving it the right nutrients and you rebuild nice healthy tissue in in the right way. Whereas, you know, unfortunately, what can happen a lot of the time is people will eat all healthy foods, but other things that are going on going on in their life are not so good. I.e. they're exposed to bad information meaning bad relationships or you know, emotional stuff, stuff at work, not taking Infoceuticals, etc. And so they end up really, basically it's a bit like you know, the architect has this building plans and you end up you can go and buy nice new bricks and nice new cement, but if you have a crappy, you have a crappy plan, you end up building another crappy building. So um, information is quite, is quite key. But that would be another podcast probably on information. And today's is all about diet.

[00:08:05] So let's just consider food as energy and inflammation to, if you like, the Body Electric. Sunlight, chi and information, electromagnetic fields from the earth, electrons (again from the earth), water, food, the physical body and also what we call the body field. So you know food can be a source, or is a source, of energy and information to all you know to all of those aspects. So let's start to get to the bottom of choosing what to eat. There's a big crazy, crazy long list of choices out there. You know them, Paleo keto vegetarian, Mediterranean, low-cal, Chinese, the India African wally belly diet, there's quite a few of them. There's even the beach diet or the South Beach diet, probably anything with the word diet is actually just an alarm bell, quite frankly. And unfortunately, all of this causes an awful lot of confusion. So what's actually a lot easier is to look at what everyone agrees on. Fortunately, they do agree on a lot. But what is, what everyone is generally agreeing on is a diet of minimally processed food and as close to nature as possible. Tick! The second thing, most people would agree that all diets should be predominantly plants. So with paleo, have a lot of

plants. Mediterranean, lot of lovely salads and vegetables, macrobiotic, lots of, lots and lots of vegetables. And if your vegetables is your you know, the 70% of the plate, your carbs, fats, proteins, and how that is mixed up with fish, this meat, that meat, etc, and all that you know, the various types of carbs or the fats, you can mix all of that up quite a lot. Because as long as the majority of your plate or your diet over a day is plants and you're in a pretty, pretty good place.

You know, there are some other some other sort of good little good little expressions like "Food, not too much, mostly plants". Not too much, well, it really does depend a bit how much exercise you're doing, but most of us are fairly sedentary so we don't need too much. Of course, if you're doing the Tour de France and exercising, don't know how long they exercise but whatever it is, six hours plus a day getting up to sort of maximum heart rates, they need to eat like absolute horses. So if you exercise a lot, obviously you do need to eat more, else you waste away. So what are we talking about in the processed end? Avoid sugar, avoid refined carbs. The upshot is basically we should be eating real food, whole foods, cut out the processed, eat mostly plants and not too much. We're going to talk a little bit about how you can do that. But firstly, let's look at the sort of bioenergetics side of it.

Now if you ever noticed how some food such as fresh food literally makes you feel more alive, well there's a pretty fascinating reason for that. It's basically because light, or biophotons, play a large part in the vitality and quality of food too. Simply put, a very vital plant will actually emit nice coherent biophotons, and you know, an old rancid, well even, you know, just old or non-organic vegetables are basically not as vital and don't emit as much coherent light as other ones. So, in other words, when we food we're also absorbing the energetic content of that food and that again directly correlates to how we rebuild, you know, repair our own body. Obviously, the more processed the less energy or the less coherent light there is in the food, but I say it actually goes right across the spectrum so the less organic, the less fresh, the less whole it is then basically the less energy, you know. And that's why lovely, yummy, fresh, healthy salads are so damn good for you.

[00:12:47] Now Fritz-Albert Popp, he originally said "Humans are also light beings, and we need coherent light to coordinate the trillions of biochemical processes happening in the body". You know, he's basically looking at coherent light as being the deliverer of information, you know, in our bioenergetics world we would we would call that call that the Human Body-Field, but I'm going to say the human body field is influenced and can be improved by more coherent, you know, biophotonic food. He also

said "We live primarily not owing substances or particles, but owing to information... the storage of light and it's supply the body play a major role as living organisms are bodies of light."

Now when we choose the highest quality foods, i.e. rich in highly synchronized photons, we eat the truly energetic products. The frequencies, as light is a wave in the food, gets transmitted to us. Now, Fritz-Albert Popp's research also showed when light shines on moving objects, photons are released by the object is the afterglow. It releases in coherent waves, a bit like laser light, and the healthier, the more vital the person, the more coherent the waves. Now the thought that light was involved in intercommunication between cells was first discovered in Russia in 1923 and Popp made some amazing discoveries relating to health which had important implications for understanding of our human body field. One, DNA absorbs, stores and emits light. Two cancer patients emit less light, MS patients omit too much, so the opposite actually and, well basically you know you need a balance between coherence and chaos. With something like cancer you generally have far far too little energy. Something that was, like, going on with MS was heavily, body's heavily inflamed almost like an overly energetic body and neither are good. Seeds and potatoes emit coherent biophotons, and health, if you like, it equals a state of perfect subatomic communication. This is a bit like our Body-Field theory. And ill health is a communication breakdown.

And his discoveries highlight the overlooked area of diet and food quality. So his lab pioneered food quality research and gained support from big food companies. They also found it possible to distinguish between organic tomatoes and supermarket conventionally grown tomatoes. Also free range eggs were, you could distinguish them from battery hen eggs just by their photon emission and any form of hom- homogenize- I say I can't pronounce words! - any form of homogenization or irradiation reduces the afterglow of food to zero. Bottom line is, eat unprocessed whole foods if you want lots of nice coherent light.

[00:16:00] Now finally, here's some free simple steps that will help to supercharge your diet. One, cut out the fake foods. So any not whole, real, and fresh – bye. Preservatives, additives, dyes, sauces... you can have some sauces, I, you know, I'm not going to go that far, especially if they're homemade yummy sauces. Avoid fat free or low fat, and consider the hidden processed carbs in energy bars, rice cakes, and pasta and you know, people think they're healthy but they're really they're really not particularly healthy. So they're very, very... they have too much carbs in them and generally they're not whole grains. Two, make over your kitchen, stick to recommended sources of proteins, types of fats, etc. And

you'll find a list of recommended foods basically in our energy for life training. So you will have to check that out. And step three, eat a rainbow diet.

Now obviously we were talking about photons. What we didn't mention is actually the color, the color of food basically, different wavelengths of photons helps as well. So you want to eat a bunch of green, watercress, alfalfa, seaweed, and all your greens. Red and pink i.e. raspberries. Yellow, sweet potato. Blue and purple, blueberries, aubergine. If you're eating across the rainbow, you're generally basically eating, well you're getting a good communication, you're basically enhancing communication in the body. You know, you're getting, I don't know quite how to put it – but basically, because light is also involved in communication, basically, you know, when you start eating light or different colors of light, it also has all of these effects on your body. It is pretty well known how different colors are generally really, really high in antioxidants. So t's just a simple thing to do. Have you have a very colorful plate or over the week, make sure you eat plenty, plenty of colors. And another way of looking at it, you might not realize, but in Chinese medicine the color of the foods also corresponds to organ. So, red/heart, yellow/spleen, green/liver. So if you want to help those different organs, yeah, you can do that.

And an extra fourth step would be to eat simply, i.e. like visually half your plate should be veg and salad. And the rest, you know, I say, well half your plate, could be two thirds, even 70% of your plate should be veg, salad and fruit. And the rest varies between protein and starchy carbs and some fat, depending on your personalized diet. And as I say, more recommendations and research, we're going to be putting together an Energy4Life Facebook group, where we'll have a lot of this information in there. So check that out. Or of course, if you are a client, there will be plenty of diet details in the in the client portal.

Hopefully that gave a slightly different insight into some of the diet wars by introducing the rainbow diet and the ideas of the photonic value of food. So thank you for listening and we look forward to next time.

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podcast episodes that you really really liked. So, thank you and see you again soon.

Wendy Myers: Bioenergetics is truly the future of medicine.

Harry: Imagine having a body charged with energy and a mind quick as lightning. Is that a super hero? No. That's you, supercharged. We'll be talking to experts who have studied the physics of life so that you can have energy for life. Now, today is a very special podcast because, again, we are going to go back in time to the days where we were recording the Living Matrix movie. Traipsing around all of Europe, getting completely lost in the Baden mountains, and then we went across an airfield. It was a disused airfield-army base and there was this concrete bunker. Inside the concrete bunker it was very, very, very dark, but weirdly enough this was the center for biophoton research. The Institute of Biophotons. It was Institute ... actually it was the Popp Institute, run by Professor Popp. Now, it was particularly weird for me, because we were

[00:01:30] expecting, if you're going to be studying biophotons, for it to be a very light, energetic, wonderful building, but, of course, there is not much research for biophotons in the world. Unfortunately, for us, or unfortunately for Professor Popp, he had to do all of his research in basically what seemed like a bomb underground bunker. So, that was the setting. Now on that little cliffhanger, before we get into Professor Popp and biophotons and basically the interview that we did about 12 years ago with some additional commentary, I'm just going to update everyone on a few things. So this is an exciting year for us because we are launching Energy4Life this year, being 2019. So we have this amazing

conference in October, where basically we're going to be unveiling sort of a new vision of how senses, wearables, all the NES type technology, the latest in how you get energy for life, like the latest in sort of health world thinking. We're basically going to be fusing all of that together within a new system, within a new client portal, a new scanner, a new app, new bio sync, et cetera, et cetera. So that's pretty, pretty cool. So I would say, I think our tickets are limited to about 90 people. So if you want those, I would get them fairly fast on the NES Health website, because it's going to be pretty exciting. Also, I just want to say about that, so we've been really, really fortunate to work with Niki Gratrix. She was one of the co-founders of the Chronic Fatigue Clinic in London, and which basically has become the most prominent chronic fatigue clinic in Europe. She's basically been working for the past year on this incredible course called Energy4Life, where it's basically a 26 unit course where she's looking at all the ways that you can get energy for life. She's fused it, basically, beautifully within the bioenergetic wellness system, so that all the various testing will be new tests, new screens, within that, and they're all being linked to various wearables, like Oura ring, like your watch, and then you scan it. We will be launching at the conference. All of this basically means that you as a client can basically be recommended precisely the sort of life changing habits that will be most prevalent to you now. Like, is your blood sugar unstable? Should you learn about blood sugar? What can you do about it? That will be really relevant for you in a particular moment. Should you be doing nice, less, and long exercise to recover tomorrow? Is your HRV off? Should you therefore spend some time doing box breathing or having longer breathing out, rather than breathing in? Basically, because we can integrate all of these different senses and all of the original NES scan, we're basically integrating the sort of full NES philosophy, with where a lot of the modern wearables and algorithms are going, and then integrating that to give basically clients a really seamless experience. So, there we go. Book that for October. I think the date is the 13th? Anyway, it's on neshealth.com, the exact date, and there will be notes in the show notes, no doubt, down below. All right. Let's just get into Popp. So, if you subscribe to this podcast, you're basically interested in having energy for life, and you're also highly curious about the energy fields in the body. And so, you're probably also familiar with the phrase "light bodies" as well. That can be a bit woo-woo, but in this case, it's not. So, if you saw the classical movie Cocoon, you may remember where the friendly aliens ... I'm not talking about you. I know you're listening alien ... strip off their human form and underneath their just beaming, bright light. Yup, that's a nice visual of a light body. Well in today's podcast, we're looking at the science behind how we, that is the humans among us ... Who's that? Okay ... really, are made up of light, down to the cellular, quantum level, and why this is important for our health. In order to have energy flow, your body needs to be charged with perfectly coherent light. That is, beams of photons at a constant frequency. Studies have shown people with cancer have less light, or less photons, in their body. The goal for all of us is to be beaming with healthy cells powered up by light, but at a perfectly balanced level, known as coherence. This means an optimal state between chaos and order. Now, a

few years back while making our Living Matrix documentary ... It's still a good movie, I have to say. It's one of the ones I'm most proud of making, but ... well I also really liked, well I liked making them all, but some of them were harder than others. Living Matrix was probably the easiest and turned out to be the best, most watched movie too.

[00:06:20] So anyway, a few years back, while making the Living Matrix movie documentary about the body field and energy medicine, I interviewed German Biophysicist Professor Fritz-Albert Popp. Now he's known for his work exploring biophotons. Now biophotons are ultraviolet and ultraweak light that emanate from all living systems, including humans. Now the biophotons in our cells function as regulators, or carriers of information. So biophoton emissions, they provide an ideal communication system for the transfer of information to many cells across our body. So, what are we talking about, the speed of light here? Just think faster. The speed of communication in the body just can't be explained by the old biochemical model. You've probably heard me say that before. It really cannot. So, in this podcast, Professor Popp is going to explain further how only photons can regulate the thousands of chemical reactions and the whole metabolism in our bodies, and in an orderly way. Professor Popp was the scientist who used a special machine to examine cancer patients and found that they had lost their natural periodic rhythms, as well as their coherence. The lines of internal communication were scrambled. In effect, he saw their light literally going out. Like, "Pop!" As in, Professor Popp. Now in contrast, he found healthy individuals had an exquisite coherence at the quantum level. He also examined the effects of stress. When we're stressed, the rate of light emissions goes up, when it actually needs to be at an equilibrium. Now according to these studies, health is a state of perfect subatomic communication, while ill health is a state of communication breakdown. We are ill when our waves are out of sync, and having coherent light is literally having good vibes. So, Popp even went on to use biophoton emissions as a tool for measuring the quality of food. The healthiest food had the lowest, and most coherent intensity of light. For example, in one experiment, he compared the light from free-range hens' eggs with that from penned-in, caged hens. The photons in the former were far more coherent than those in the latter. Biophoton emission detection is currently used commercially in the food industry. Now the scientific research about biophotons in our cells has huge implications for how we understand energy in the body and for influencing the future of medicine. In fact, Professor Popp's experiments showed light emissions were sufficient to orchestrate the body's repairs. Sound familiar? Does that sound like the body field's control system? Hopefully. He explored re-socializing photon emissions of tumor cells back to normal, and he also explored the idea that if we take in the photons of other living things, we might also be able to use the information from them to correct our own light. Now all of this kind of knowledge, it leads us to better understand the need to correct information and reintroduce better communication in the body, through energy medicine modalities and other ways, such as what we consume into our bodies. And if that wasn't enough, coming up as well:

[00:09:20] According to Dr. Popp, the meridian system transmits specific energy waves to specific zones of the body. So stay tuned for that, and he'll also discuss the transfer of information between people, such as between a practitioner and a client, and how there's more chance of a healing modality being successful when there is harmony, or coherence, and a positive intention between the two people. So to kick off the interview, I asked the professor about his background, and I "Popped" the big question, "What got you interested in biophysics, as opposed to just physics?"

Professor Popp: I was originally an experimental physicist, then I later turned to theoretical physics, and then I made my habilitation in biophysics. I worked in a radiology center, where cancer patients were treated. From this time on I tried to understand cancer, as this was the reason why I came to biophysics. In order to find out what cancer is, I found that there are carcinogenic compounds. Their activity could only be explained in terms of their optical properties. So, for instance, benzo(e)pyrene is a very harmful substance, but benzo(a)pyrene is one of the most powerful carcinogenic compounds. Both these molecules have the same chemical properties. You cannot distinguish them because they are, more or less, the same molecules only with a shift of a benzene ring in the molecule. So, nobody could explain that the one is so active and the other is so harmless. I found out that the optical properties are completely different, and only the optical properties are the ones in which they are different at all. So, the idea was that the optical properties are decisive for cancer development. You know, there is a photo repair function in the body. Where, by photons, you can repair the damages. If you have not this possibility to repair, cancer may develop. For instance, xeroderma pigmentosum is a disease where this repair function doesn't work. Its photons, which are responsible for the repairs, they are in the UV range, or in the blue UV range. Just in this range, there is a difference between benzo(a)pyrene and benzo(e)pyrene.

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Harry: So to clarify and elaborate a little, Dr. Popp discovered the benzopyrene, the cancer producing molecule, absorbed the UV light, then it re-emitted it at a completely different frequency. It was a light scrambler. The benzopyrene which is harmless to humans allowed to UV light to pass through it unaltered. Now puzzled by this difference, he experimented with UV light on other compounds, testing some 37 different chemicals, some cancer-causing, some not. After a while, he was able to predict which substances could cause cancer. In every instance, the compounds that were carcinogenic took the UV light, absorbed it, and changed or scrambled the frequency. It was another old property of these compounds. Each of the carcinogens reacted only to light at a specific frequency, 380 nanometers. Take a note and they will be used in one of ... Oh, I didn't ever mention it, but we are inventing a [hear-able] type device that will be shining light up through the ear at certain frequencies, with certain sets of information on it. I'm going to leave it there, because I don't want to ruin the big announcement that might come later. He kept wondering why a cancer-causing substance would be a light scrambler. He began reading scientific literature

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specifically about human biological reactions and came across information about a phenomenon called photorepair. So my next question was, "How did you come to discover that biophotons help in the repair mechanism of a cell?"

Professor Popp: Yes, of course, there was at that time ... I was invited by the Cancer Research Center in Heidelberg, and I talked about my theory. They said, "In order that your theory is correct, there should be light in the cells, because if the molecules are not activated, you will not have a difference. So, the optical transitions in these regions should be permanently excited." And I said, "Why not?" So, we said, "Okay, then we will find out whether there is light in cells or not." I asked for support, for financial support. They gave me the support and we started in Marburg. I was, at that time, an Assistant Professor of Biophysics. They supported my work, and we started to look for these photons. I knew from the beginning on that it must not be very high intensity, but it was clear that one should have these photons at all in a cell. So, we started to work on this field. I had a very gifted student who made his Ph.D. by this work, and I asked him to construct an equipment where one could measure photons in this range. I knew that it has to be very sensitive, this equipment, otherwise one could not find it. He told me, "There is no photons in this range in cells." Nobody believed at that time. So, I said, "Okay, then show evidence that there is no photons in the cells." And he started to show evidence that there are no photons. I said, "Okay, if you show evidence that there is no photons, you can get your Ph.D. too. Why not?" So, we started and about two years later, we had an equipment where we saw that all living systems ... We started with cucumber seedlings, and later with other ones ... and all living systems which we put into the instrument showed this very weak photon emission. But not only the 380 nanometer range where we expected it. Over the whole visible range, we could see this photon emission. At the beginning, nobody believed in it, and we started to consider what could their ... what is their role, what is their function? Then we found was that before us, other groups and other scientists had shown already evidence of this biophoton emission. Photon emission, I had to say. They were thinking that they come from chemical reactions. This was the first thing which we found out, or which we believed in. We could not believe that chemical reactions are so important. Look, for instance, that it was not important for the role of these two carcinogenic compounds. The chemical properties were the same, so we expected just the opposite. We expected the photons are triggering the chemical reactions, but they are not originating mainly from chemical reactions. You have in one cell, you have, per second, about 100,000 chemical reactions. That's well known, so it's just the average. In order to regulate these functions, that at any instant, at the right position, and at the right time, the right chemical reaction takes place. You have to have the most perfect informational system, which gives you the informations, that a definite reaction has to take place, at the right time, and the only possibility for that are photons. Because in order to trigger a chemical reaction, you have to activate at least one of the molecules which takes part in the reaction. So, to activate a molecule in the right range, the right spectrum range, you have to have photons. So, it was clear from the

beginning on that this can happen only by photons, which have to be in the cell. Of course, I recognized it later, not at the beginning already, but with the time I became aware that only photons could regulate these chemical reactions, the whole metabolism. And it could not be a chaotic regulation, it had to be strongly ordered.

Harry: And so it is the purpose of the biophoton to contain and coordinate everything in the cell.

Professor Popp: So, this can be mediated only by photons. So, the photons should be the carrier of the information, which is necessary to regulate the metabolism. This was completely clear after some time of thinking about the situation. Then it was clear that you have two possibilities. The one is that the photons originate from chemical reactions, which is possible, of course. Or they are triggering the chemical reactions, this is possible at the same time too. At least, the high information content, which is necessary, can come only from the photons. Molecules are very stupid, they cannot regulate themselves. They have to have a fear, more or less, an electromagnetic fear, which is necessary to activate the molecules.

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Harry: So this begs the question, "What actually creates the photon emission in the cell?" And as the professor will explain, there needs to be an order, a coherence, and timing is everything.

Professor Popp: The photons have to be very coherent. They cannot be ordinary photons. The coherence time of an artificial photon is in the order of, say, a nanosecond. The coherence time of the photons of a laser is about a tenth of a second. You have to consider coherence times which are even much longer, or the degree of coherence should be much higher. In Berkeley, in California, they showed evidence that the quantum coherence in photosynthesis is much higher than expected. So, the efficiency of photosynthesis is much higher than they expected. There is almost no entropy production, we said, because this coherence is rather high. It has a ... it plays a big role, a very important role, for instance, for the warming of the earth. Not only there, but in all biological systems. You have this perfect efficiency of the different reactions, which is only possible with, more or less, a perfect quantum coherence of all the things which happen. So, these photons in a biological system have a very, very high degree of coherence, and we showed evidence in the last years of that. You can show it by means of possibility ... of statistics, of photon count statistics. Photo count statistics can give a proof of the high degree of coherence, and we showed evidence already. We took about ten years in order to show, to measure the degree of coherence of biophotons. So we are convinced now that the biophotons are the regulator of all the functions in the cells. It must not be only in the optical range, but you can take these photons in other ranges too, in the infrared range, in the microwave range, and so on. But you have always the

same principles. A very high degree of coherence ... I do not say that must be coherence, but it can be coherence, can be very, very, very coherent.

Harry:

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So next I asked the professor to describe one of his experiments where he sent infrared photons into the meridian systems and observed the photons along the meridian. And with his amazing microscopic view, what is the meridian really like?

Professor Popp:

One can show for instance, by moxibustion. A friend of mine did it. I was not the inventor of this very surprising result. If you make a moxibustion, immediately you see that there appear channels on the body, and these channels are identical to the meridians of the Chinese medicine, usually. But one has to say, you can also produce channels which are different from the meridians. The whole skin is able to build these channels, and these channels are dependent on the circumstances. The meridians are different from the skin, because in the infrared photography, they are much hotter than the surroundings. They are really hot, they can get a temperature ... it's not a real temperature, it's an excitation temperature, and this temperature can be about 40 degrees, or even 50 degrees.

Harry:

[00:23:50]

So next I asked, "What difference does it make when the body is active? When the body is moving or having an increase in metabolism? When the body is moving or having an increase in metabolism, does the body produce much more biophotons, because more information is needed at that time?"

Professor Popp:

It's not a question of the intensity. It's really a question of the coherence and of the distribution of the photons. You can get even phases where mainly destructive interferences, well it ... You transfer not only information, you transfer also the energy, and distribute it over the whole system.

Harry:

So when a practitioner is trying to heal somebody, whether that's through homeopathy or acupuncture, or healing devices for instance, is that also transferring information in some form to that person, and can that information help nudge the body to get better?

Professor Popp:

Yes. We have to know that coherence is not only important for the visibility and for the different functions of information transfer, it is also important for the distance over which you can transfer information. At rather high degrees of coherence, which are technically not possible, but in our biological systems they are possible, you have even to consider that the information can get out of the body over longer distance, and can be transferred and can be controlled and regulated over many, many kilometers of distance. But it is very difficult because with increasing coherence in this range, the matter becomes transparent. So, over long distances, you have the possibility to transfer information in terms of resonance principles. If you have a complicated antenna

here and a complicated antenna here, which can transfer information by resonance, you can do it over many, many kilometers of distance.

Harry:

[00:26:00]

There is a lot of talk about the perceiver effect and intention. Could there be a connection between different information systems, whereby the information is more important than the connection?

Professor Popp:

It must not be a permanent, straightforward information. It more some overlapping of the systems. It is even difficult to say who is now the sender and who is emitter. It becomes more and more a non-locality. This information cannot be taken by conscious, more or less, but it is more subconsciousness. It is not like in a telephone. It is some kind of agreement of, or finding the feeling to be in one state or such things. All these different kinds of information become possible simply by coherence, by a high degree of coherence. So, the information gets completely different ways as we are commonly used of.

Harry:

So, I asked the professor whether this is like saying that the information exists anyway, but two people can access it at the same time. Like information that is recorded in the reality, but the patient and the therapist are just accessing it simultaneously.

Professor Popp:

Yeah. Yeah, yeah. Yeah. It is an uncommon feeling. For instance, we speak of zeitgeist sometimes. Though many people think the same things, and it is a tuning into the surroundings and the environment. And the information character, it must not be personal. It may have many different roles. One who sets it, and who is in my opinion, at least in principle correct, is Sheldrake for instance. He thinks of such kind of information. One knows that the most important point is this kind of information. It depends not on the intensity, it depends on resonance conditions, which can happen at very, very low intensities. For instance, the information in a cell, which is necessary in order to regulate the whole metabolism. It is not necessary to have a lot of photons. You can do it with one photon. You can with one photon, you can regulate about ten to the nine reactions per second. Why? Because a reaction, a chemical reaction takes place in about ten to the minus nine seconds. The photon triggers a reaction, the compounds become reactive by taking up this photon, but after a nanosecond, the reaction is over, and the photon plays a catalytic role, gets back to the field, which is not thermalized. So, it is available again for the reaction, again. It is a non-local coherent field. And after a nanosecond, the next photon is available, so you have two photons in ten to minus nine seconds, which means that you can trigger about ten to nine reactions per second, with one photon. So, you need not very high intensities. You can do it in a non-local field with one photon. The same happens not only in one cell, because of the transparency, it works in the whole body. And over the body, it can also work outside of the body, in distance, in distant parts of the body. Of course, there is a big chance that it goes down with the distance, it goes down after definite law we do not know ... it must not be a square law, but take even it that is an S

square law. Nevertheless, it is a big distance at which you can get information by resonance principles. I calculated that if you have a high tuning of resonance, you have always the possibility of an information transfer. Of course, it may not be ordinary, but we are more or less used to it. We take some information of it without knowing that we take information of it. It is very difficult to show experimental evidence of that. But for instance, in the Second World War, many mothers, they said they immediately knew that their son was shot down or killed in Russia. Why could this happen? Many, many mothers said it, and it was evidence that they really knew it. Because DNA is a very complex molecule, and mother and son have probably some resonance possibilities. So, over the distance from Russia to Germany, there could be some kind of information just switched on when the son died in Russia. This could have happened.

Harry: Pretty incredible. So, if you're a therapist, perhaps you're tapping into such a resonance, even from a distance. So, do electrons and photons also have the non-locality property?

Professor Popp: Of course, you can construct non-local situations. But you need in this field always ... this is an important point, you need a very high degree of coherence. Otherwise, it would not work.

Harry: [00:32:00] Next I asked Professor Popp a little about his research involving personally working with healers. So, if you're a practitioner, how important is the connection and exchange of information between you and your client? And what about your intention to heal, what role does that play? And do the studies suggest all this could be happening with the healer and client relationship too?

Professor Popp: Yeah, I the impression that it works probably in the same way. I myself was subject, now, of several trials. I can now measure with our equipment whether you have an improvement of the regulatory capacity of the body or not, after such a process. There is an overwhelming number of cases I saw, that a healer influences and supports the regulatory activity of the body. We have different healers. One makes it with this method, the other with another method, but I have the impression that the healer have to concentrate and to wish to influence the body in a positive sense. For instance, I have two healers and the one ... I do not like this healer. I do not know why, but she has never success with me. The only one who is not successful. But she is successful in other cases, so probably the intention plays a strong role in this. In the connection or exchange of information.

Harry: So, I hope you really enjoyed listening to the episode about Professor Popp. It's a pretty, pretty fascinating subject, the whole biophoton end. There is an awful lot of other cutting edge research going on, and ... Well, actually earlier I sort of mentioned about this hear-able type device. We will be integrating a lot of the biophoton light research within our next set of hear-able devices, which are pretty, pretty exciting. Which will basically be available for anyone in the

Energy4Life stratosphere. That is coming next. All right. Well, thank you and talk to you in the next episode.

Wendy: Please keep in mind that this podcast is not intended to diagnose or treat any disease or health condition, and is not a substitute for professional medical advice. Please seek a medical practitioner before engaging in anything that we suggest today on the show.