



SECRETS OF QUANTUM BIOLOGY

Dr Jalal Khan

UnstressHEALTH



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with Dr Ron Ehrlich



Podcast Transcript

Dr Ron Ehrlich [00:00:00] Hello and welcome to Unstress. My name is Dr Ron Ehrlich. I'd like to acknowledge the traditional custodians of the land on which I am recording this podcast. The Gadigal people of the Eora Nation and pay my respects to their elders - past, present, and emerging. And I do this because I truly believe that we as a community, as humanity, have so much to learn from our First Nations people about connection and respect.

Dr Ron Ehrlich [00:00:34] Well, today we are going to explore the fundamentals of life, Quantum Biology. And my guest is Dr Jalal Khan. Now, Jalal is the Founder and principal dentist, or rather, he describes himself as an oral physician. And I can certainly understand why. And you will, too, of The Dental Station in Sydney, Australia. He's also Founder and CEO of The Dental Truck. Now, this is an extraordinary initiative, a charity focused on providing comprehensive mobile dentistry in communities in need. He visits the outback with his Dental Truck and I will have more information about that at the end of the podcast. But Jalal's real passion lies in understanding how things work, and this has led him down the road of a philosophy and concepts such as decentralisation, the Quantum Realm, and how this all applies to the individual and the society at large.

Dr Ron Ehrlich [00:01:31] Now that sounds like a big tall order, but as I've said many times, is the world we live in becomes more complicated. The solutions are remarkably simple and you will learn that is accessible to you as well, above all else. Jalal is a deeply committed family man, credits his family with providing him the motivation to break out of his self-proclaimed previous mental inertia. Well, I definitely met Jalal after he had done just that. He certainly wasn't in any mental inertia when I met him, and I was so impressed and so inspired by what we discussed and I wanted to share that with you today. It is so fundamental to a healthy life and also so fundamental to why preventable chronic diseases are the problem they are today. Look, I've been in practice for 42 years and to meet Jalal about six or 12 months ago was a truly inspiring thing for me and I was so looking forward to sharing him with you. I hope you enjoy this conversation I had with Dr Jalal Khan.

Dr Ron Ehrlich [00:02:37] Welcome to the show, Jalal.

Dr Jalal Khan [00:02:39] Thank you for having me, Ron.

Dr Ron Ehrlich [00:02:41] Jalal, A pleasure. Look, you and I have known each other now for, I think almost a year now. And I've so enjoyed our interactions and our conversations. I have personally learnt so much and I had to share you with my audience. I'm just interested. You see life... Well, what is the lens through which you look at health because you are a health practitioner like I am how do you see health?

Dr Jalal Khan [00:03:07] So the way that I look at health is to understand the system that we're working with. So the human body is fundamentally a Quantum Thermodynamic system. Now, that's a big phrase for one to wrap their head around. And admittedly, it's taken me several months to really understand it at a deep level. But in order to understand what that phrase means, I guess it's important to define what is the target for someone that's on a health journey. And so the target is rightly so, optimal health. So what does that look like? Because I feel there's a lack of definition being applied to this target of optimal health in the health space. And for me, optimal health looks like a flow state, and it's a flow state where that system can harvest energy from the environment.

Dr Jalal Khan [00:04:00] And there's three sources from which we can harvest energy. That being the Sun through the photoelectric effect, food which provides us electrons as well as the Earth, which provides an endless supply of electrons inside the Earth, so by grounding. So if you've got this environment which is able to supply you all this energy, you've got to be able to harvest it, you've got to be able to store it within your body. And we use our water networks as a capacitor to store that energy, and then we should be able to disperse that energy and use that energy on demand. And so that means if there's a voluntary action such as running after... running away from a line, for instance, we should be able to call upon the energy stored within our water networks to drive that function. Or it could be an involuntary autonomic function such as peristalsis itself. But regardless, it's those three things harvesting, storing, and dispersing that energy on demand, which to me typifies the flow state that is optimal health. And to make it even simpler for your listeners to understand when someone is lacking in energy, struggling to wake up in the morning, they

know something's wrong. If they're gaining weight uncontrollably or losing weight uncontrollably, they know something's wrong. And these are all signs of Thermodynamic inefficiency.

Dr Jalal Khan [00:05:26] And so the thing is, is that when you look at Thermodynamics, the second law of Thermodynamics basically says that a system is always tending towards a state of entropy, and entropy is fundamentally chaos. And so the beauty about life is that we are actually able to make order from this chaos which enables us to live for several decades, if not more than 100, particularly in blue zones and for those that are living healthy. And so how are we able to skirt this second law of Thermodynamics and live for such a long time? And this is when the Quantum aspect of the Quantum Thermodynamic system comes in because what we are able to do is we are able to harvest information, not just energy, but information from our environment. And it is the information which is really in the form of the sense of time, and we sense time via light. So it is introducing light into our system that enables us to order all the molecules in our cell and order all the tissues in such a coherent way so that we have this global Quantum coherence inside our body where every cell is acting autonomously. Yet at the same time, for the benefit of the entire tissue and in the entire organism.

Dr Jalal Khan [00:06:54] So that's kind of the lens that I look at the human body through, and it can get complicated. And so I, I mean, we're talking Quantum Physics and Quantum electrodynamics and understanding how light interacts with electrons. We're talking about Albert Einstein's theory, such as $E=mc^2$. But these are all fundamental to the way that we operate. And it has been a massive paradigm shift for me as a health condition to go back and study these things completely in a self-directed way in order to better myself so that I can serve my patients in a better way. And when I start to talk to patients about this, it can get pretty confusing for them. So I kind of use the economy that we participate in as a way for them to really understand what I'm talking about.

Dr Ron Ehrlich [00:07:49] Yeah. Well, I mean, it is so interesting, isn't it, that when you think about and I often do think about us as individuals on a evolutionary journey from the beginning of life, say, 500 million years ago, and the beginning getting up on two legs as australopithecines, whatever. And our journey to... Up to about 10,000 years ago, our interaction with the ground on which we walked and the food which we had access to, and the Sun, which thankfully came up and down every single day.

We didn't even have to think about that because that's how we evolved. But the last few thousand years, and particularly the last few hundred years, we've kind of moved so far away from that and it's easy to forget. We sometimes need to go back to basics, and that is what we're really talking about today. But you mentioned also you see the economy as a way of mimicking what's happening Biologically and you... Tell us a bit about that.

Dr Jalal Khan [00:08:57] So, I mean, what is an economy really is it's a place where there's a transaction of goods and services, right? And so, someone might be working on a construction site and they're putting time and energy into their work. And they want to be able to use that time and energy to transact with someone else who's providing time and energy to provide another good or service. And that might be buying meat from a local regenerative farmer. And so how can that person A convey the time and energy that they put into their job to person B in order to access said good or service and they have to have some sort of currency in order to convey that? And that's really fundamentally what money is. So the currency, whether it be notes, coins, digital, it is money is essentially information.

Dr Jalal Khan [00:09:52] It is a representation of the value that you have provided so that you can show that to other people and obtain an equal value. And so in our body, there is a economy of electrons and protons and molecules that are talking to each other and enzymes that are interacting with substrates and all these types of things. And so how do these molecules and these electrons and protons know how to interact with each other? And they know via the electromagnetic spectrum that is being provided wirelessly from the Sun, from the Earth to our body. And one such example is kind of just the Quantum spin of electrons, the Quantum spin of various protons and how they are changed based on the electromagnetic spectrum that we are exposing ourselves to. I mean, the electromagnetic spectrum is a broad range of when we're talking about microwaves and radio waves to ultraviolet visible light, infrared light onwards to X-rays, gamma rays, etcetera. But I mean, we can only see zero point, I think 0035% of the entire electromagnetic spectrum. And so... One of my big message is that we have to trust in what we can't see because we can't see things for a reason.

Because if we could see what UV light in infrared light would do to us, its Quantum effects would be diminished. This is called the observer effect or the Quantum Zeno effect, where when you were observing a Quantum event when you measure it, it stops behaving in a Quantum way. And so there's a reason why we can see these spectrums and frequencies, but there's a reason that we need to expose ourselves to this as well.

Dr Ron Ehrlich [00:11:37] Hmm. Yeah. Look, you know, we're getting... You've mentioned electrons a few times. And it is interesting because we all studied Biochemistry back at undergraduate level. We couldn't wait to finish it because, you know, why? Why did we study Biochemistry? Because we had to study it to get through second year, to get to third year. And that seemed the most important reason why we studied it. And I think an opportunity was missed there because it just happens to be the way the body works. And one of the things that we learnt about was electron transport and the role of the mind. You talked about energy as well and, the role of mitochondria. So I thought we might just give us a little bit of mitochondria when I want.

Dr Jalal Khan [00:12:27] Sure, sure. I mean, going back to what you were saying, firstly about Biochemistry, I mean as health conditions and people that are on a health journey, we need to understand that Biology is fundamentally applied chemistry which we refer to as Biochemistry, but that Biochemistry is actually Biophysics. And that and the Biophysicist is underpinning what is happening with the organic chemistry and the carbon chemistry. And that Biophysics is Quantum Physics. It's not Newtonian classical Physics. So I mean, so the stage for where all of this happens, where we are interacting with our environment is the mitochondria. And so, I mean, the mitochondria is like it's an organelle inside ourselves. We took it several million years ago into our soul and started to use it for energy production and through a process called endosymbiosis. And it's commonly thought of as like the power plant of the soul because it's producing energy, but really it's also an environmental centre. So there's two membranes and the inner membrane has got five proteins which are referred to as Cytochromes, and these Cytochrome proteins are actually light receptors for frequencies of light from the Sun.

Dr Jalal Khan [00:13:49] For instance, Cytochrome one is a UV light receptor, Cytochrome four and five are red light receptors. And so they are sensing the electromagnetic frequencies that they are receiving from the Sun. And then they are sinking that with the electron spins, that they are sensing through the input into the electron transport chain because electrons are going in not fats, not carbs, not proteins, the electrons are going in and they are Quantum leaping from entering in from either one or two the first or second Cytochrome and working their way through to oxygen. And as they're Quantum leaping, the mitochondria are kind of checking their Quantum spin and coupling that to the environment that we are exposing ourselves to. And so... It's quite magical what mitochondria do. They reverse the process of photosynthesis. So one of the outputs of mitochondria is water and that's maybe something which we can touch on later. But as the electrons are passing through the electron transport chain, inevitably some will escape. And this is kind of inline with the second law of Thermodynamics, where we lose energy to our environment, we lose, we create entropy or begin chaos. And so inflammation is really an excess loss of electrons as they are Quantum leaping from the first or second through to oxygen.

Dr Jalal Khan [00:15:12] So the goal of an optimal health journey is to reduce how much you are leaking to your environment, because we do fundamentally need some free radicals from the mitochondria to escape so that they can signal DNA for... And guide genetic expression. But we can't have too much because then the Thermodynamic efficiency of the whole system breaks down and we lose something called Redox, which is a reduction-oxidation potential, which is the ability for us to transfer electrons from one molecule to another from one protein to another. And once we lose Redox in them in a cell and then in a tissue, that's kind of when disease begins in that particular tissue. And we refer to it as inflammation. But as I said early on, I like to define things. So I regularly as health conditions to define inflammation. Well, not many can really say it definitively in their own mind. Now, I might be wrong, but I'm confident that inflammation really is an excess loss of electrons to your environment as they're trying to leap from... through the various Cytochromes. Or it could also be an excess number of protons inside your system. So to me, that's what inflammation looks like. And one of my mentors, his name is Dr Ron Ehrlich, and he beautifully structured the idea of stress.

As a framework for me where there's five main stressors and they are nutritional, environmental, emotional, postural, and dental is a bit biased because he's a dentist, so he's chucked in dental.

Dr Ron Ehrlich [00:17:01] But music to my ears, Jalal... But go on. That's an unpaid commercial folks, but thanks for that.

Dr Jalal Khan [00:17:09] But really these are these five stressors cause oxidative stress at the cellular level. And so what's oxidation? Back to high school chemistry. One of the things that I learnt was something called OIL RIG, which is oxidation is lost, reduction is gained. And so oxidative stress is oxidation of the cells of the tissues. It's rust and it's fundamentally a loss of electrons. So, I mean, mitochondria is the stage of which we interact with our environment. And if things go wrong and if we decouple from nature, which is very common in our modern lives, that's when we start to see a loss of reduction of mitochondria which flows onto the tissues, inflammation. And to me, that's the bedrock of majority of chronic Neolithic disease that we're seeing these days. And people are stuck in this paradigm of genetics and food and exercise. And I mean, don't get me wrong, eating healthy food is critical to one's health journey as is exercise the right type of exercise and timing your exercise correctly in line with Circadian principles. But in addition to that, if people are not going further and looking at their light environment, they're not going to make much of a headway into their optimal health journey and increasing their longevity.

Dr Ron Ehrlich [00:18:33] Mm-hmm. Well, I know. I think I've been reading a book called Brain Energy from Chris Palmer, who's been a psychiatrist, talking about the importance of mitochondria on so many different levels in terms of regulating hormones, in terms of regulating expression of DNA, etc., etc. But you've mentioned the five proteins, the Cytochrome, and there's a Cytochrome... a process that goes on and that... there's also a production. And also interestingly, you said it's the opposite of photosynthesis. So photosynthesis is taking carbon dioxide and water, CO₂ and H₂O and converting that to carbohydrate CHO and oxygen.

Dr Jalal Khan [00:19:27] And so the Sunlight is actually splitting the water into hydrogen and oxygen, which frees up electrons to fuel the electron transport chain that's happening in chloroplasts

and I mean a new discovery for me recently was that this actually happens inside us as well. So we are photosynthetic beings because melanin is photosynthetic. When Sunlight strikes our melanin, it splits water inside our melanin into hydrogen and oxygen and releases four electrons. And those four electrons are free to do whatever they need to do or whatever the signal to do by the environment. And to me, that's just beautiful. I mean, it also begs the question like, is all the oxygen that is inside our body from physical respiration or is some of the oxygen inside our body created from the photosynthesis of splitting of water inside our melanin? And there are some who believe that the latter has an important role to play in the oxygenation of our tissues. So, I mean, that's something which I'm definitely going to look more into. I mean, the other exciting thing about mitochondria is that there's other proteins on the inner membrane as well called uncoupling proteins. And so basically just to rewind back to the electron transport chain as the electrons are Quantum tunnelling through the electron transport chain, along the way, protons are being pumped into the space between the first... And between both membranes and the protons, then develop a bit of a gradient where they're more concentrated on one side and then less concentrated on the other side of the membrane. So they want to kind of work their way down to the area where there's less protons.

Dr Jalal Khan [00:21:08] And so there's two ways for it to happen. The protons can come down through Cytochrome five, which is ATPA's, which result in the production of ATP, which we think is "energy" in quotation marks for a reason. We'll touch on that later, perhaps. But the other way that they can funnel down is through uncoupling proteins and when they funnel down to uncoupling proteins, that's when we produce infrared light. And that infrared light changes the water inside our cells, which then allows us to heat up from the inside. It shrinks our mitochondria, and as it shrinks the mitochondria, the Cytochromes which might be this far apart are a lot closer now. So then it's easier for electrons to Quantum leap from one Cytochrome to the next. So I mean the mitochondria have different haplotypes as well. So haplotypes is kind of like whether or not it's a coupled and uncoupled mitochondria. So people with fairer skin tend to have uncoupled mitochondria and they use electrons from food to create protons in the... Into membrane space. And those protons are then used predominantly through the uncoupling protein to produce heat.

And why they're fairer because they're further away from the equator. Which means it's colder, there's less UV light, and so they need to produce heat. In order to continue to survive rather than ATP or energy.

Dr Jalal Khan [00:22:37] And so you look at the diets of people that are in Nordic regions, it's high in fat it's high in seafood, because those areas... I mean, fats heavily dense in electrons. I think it's 130 odd ATP per unit of fat or molecule of fat compared to... Per molecule of fat compared to 36 ATP from one molecule of glucose. So there's a reason we're producing way more energy output from fat because it's so much more electron-dense. So but if you're in a Nordic area, it's freezing cold you're eating seafood. The protons are coming down to uncoupling proteins which allow you to produce infrared light or heat inside of you. That's how you survive. And so it's understanding the mitochondrial Biology, how it defines where we should be living and where we should not be living and what we should be eating and what we should not be eating. Because I mean, carbs should not be eaten in winter. That's a controversial statement, but it really boils down to light inputs and electrons.

Dr Ron Ehrlich [00:23:47] Hmm. Wow. I mean, look, as you, as you're talking and you know, I mentioned that we learnt about Biochemistry and Physics early in our education, in health and in high school. Really, because in high school we learnt a bit about Physics, we learnt about photosynthesis, we learnt about respiration. We learnt that in Biology. It's interesting, isn't it, that we've drifted not only so far away from the connection to the Earth and natural forces, but also culturally. We're not living where we've evolved to... Over many millennia to live and adapt to. That's another challenge that we've thrown up. And we're going to come back to how we might address some of that. But I want to just talk about water for a moment because you said oxygen in our body isn't just coming from the oxygen that we've inhaled, but also through this melanin potentially photosynthetic process. But water is another one, isn't it? The water that really matters, if you like, is not necessarily coming from the water we drink.

Dr Jalal Khan [00:25:01] Yes, spot on, I mean, water's magical. There's no surprise that water is regarded as life because its ability to fuel life and create life is magical. It's incredible.

So, like, I mean, what happens with water, is our mitochondria produce water through Cytochrome four. And as electrons reach the oxygen, which is sitting there with Cytochrome four and the proton joins to it, we get this deuterium-depleted water. And this is something which has been shown by people such as Gerard Pollock and previous research through Gilbert Ling. It's been shown to charge separate under the influence of infrared light. Now the Sun is 42% infrared light. And so the charge separation fundamentally means that we're able to separate the water inside our body into two phases. And one is an electron negative phase, which is known as exclusion zone water, EZ water. And the other is a bulk water phase, which is kind of more akin to the liquid water that we drink. And so cellular hydration or body hydration is got nothing... It's got little to do with how much we are drinking. I mean, it's obviously important that we drink water, but more to thirst rather than a set number of two litres per day. And it's how hydration at a cellular level is more about how much water we are producing, which depends on mitochondrial function and at the same time us charged separating that water into the negatively charged exclusion zone water and the positively charged bulk water.

Dr Jalal Khan [00:26:50] And so when you get a positive and a negative and this exclusion zone, water is a liquid crystal, which is a fourth phase of matter. This is why this is called fourth-phase water. It's hydrophilic, which it attaches to hydrophilic molecules such as proteins, enzymes. So pretty much every protein in the body is wrapped in this exclusion zone water. And the most ubiquitous protein inside our body is collagen. And so if collagen, which is in our bones, it's in our tendons, ligaments, it's in our skin, it's in our connective tissue, fascia everywhere. If that is all entirely wrapped in water. Which is charge separated and the magnetic field of the Earth is able to align all of the liquid crystals so that they're all in sync. This creates literally like a Quantum communication highway. And when you have a positive and a negative with collagen acting as the wire, you have an electrical circuit and that is actually the source of energy for us. And the communication of information through this Quantum communication highway is far similar than that of nerve conduction. And it's I mean, we can't read enough about water. This charge separation of water is I guess it's structured water as well. And so it's a structuring of water through the exposure of infrared light, which is critical to longevity,

well-being, improving Quantum coherence inside our body. And there's a reason why things like red light therapy are important.

Dr Ron Ehrlich [00:28:40] Hmm. Yes, we're going to come back to that. But still sticking with the water for a sec because I think one of the men, you know, whenever we're looking, for example, at cancer, you know, one of the features of a cancer is that it's palpable, that you can feel it, that you can run your finger over. Not all cancers, obviously, but, you know, people, for example, with breast cancer can feel a lump in their breast or testicular cancer. You know what they're actually feeling there are cells that no longer have a well-functioning, EZ liquid crystal water, isn't it, really? I mean, that's what's going on.

Dr Jalal Khan [00:29:21] That's what's going on. And also cells that have... don't have the ability to undergo apoptosis.

Dr Ron Ehrlich [00:29:29] ...How do you explain that?...

Dr Jalal Khan [00:29:31] Which is programmed cell death. So when you have a molecule, a cell that's misbehaving that doesn't have the cues to undergo programmed cell death, it can continue to self-replicate. And that's when cancer starts to explode. It's concerning what's going on in society with cancer rates as well as the age at which people are getting cancer. And to think that cancer is genetic and to think that to ignore much of that environment. And it's... It worries me because in 1924, what Otto Warburg worked out, that there's a Warburg shift that occurs in cancer cells where... Which is essentially anaerobic glycolysis. And if we are going to try and win this cancer war, so to speak, we really need to revisit that, understand more the role that deuterium and mitochondria play in the proliferation of cancer.

Dr Ron Ehrlich [00:30:40] Hmm. I mean, it's so interesting to think about that water not just as changing the nature of the cell itself in terms of its feel, but that liquid crystal water also protects the DNA. I mean, that's a really important part and which is so interesting because cancer there are two schools of thought and the vast majority of people in this field think cancer is a genetic disease.

But a growing number of people feel actually this. Yes, it's obviously affecting genes, but there's more to it than that. Why are genes affected? It's actually a metabolic disease. And coming back to which is all about mitochondria and water and all of that and coming back to that book, Chris Palmer's book, he's talking about mental health as being a metabolic mitochondrial disease. So what we're talking about here in terms of Quantum Biology and Quantum Physics and how that how the rubber hits the ground so level is really important. It may not be easy to wrap your head around and it may give you a bit of a clue as to why most doctors and health professionals would prefer to forget about it, because the prescription pad is a much easier concept to get your head around. But there is another way of looking at health, isn't there?

Dr Jalal Khan [00:32:02] 100%. And as you said, it's hard to wrap one's head around. So leave that to the Quantum health conditions or the health conditions that are wanting to go down this rabbit hole so that we can do the hard yards and work out what is the way for one to live optimally and then give you a personalised blueprint of how to achieve that.

Dr Ron Ehrlich [00:32:24] Hmm. Now, you mentioned, you know, the Sun and food and Earth. Let's talk a little bit about light here because, you know, it has been demonised. I mean, apparently, this thing that's 93 million miles away is to be feared, loathed, and avoided at all costs. And yet where is my phone, this thing that... Is emitting radiation And we'll talk about that in a moment. No problem at all. Let's come back to why Sun is actually it has been I think if evidence is anything to go by, the last oh I don't know four or 5 billion years is reasonable proof that Sun has played an important role in that journey. Tell us a bit more about sunlight and some of the problems we thrown up now with the alternative forms.

Dr Jalal Khan [00:33:13] Yes, I mean, the Sun is... It's a source of all energy on this Earth. That's an unequivocal fact. And if somebody struggles to see that, then we have a long way to go. And so if it's a source of all energy on this Earth and we have evolved under the Sun, then we need to learn how to utilise it correctly. And I guess the misnomer is, is that the Sun causes skin cancer when in reality the studies that have come out, I think it was from Sweden in 2016, which kind of showed that like all-cause mortality

increases with reduced Sun exposure. Now I'm not saying to go and spend 12 hours in the Sun straight in the hot Australian Sun with the strong UVB. I'm saying to use it responsibly. And so... What's happening is people are going from 0 to 100 kilometres an hour. They're working in their offices all day long. The pop-ups at lunchtime have a bite to eat. Oh, the Sun so strong and then they'll just go back in. Whereas they're not learning the basics of how to generate an ability to handle sunlight exposure. You can build a solid callus which increases your ability to absorb UV light. You can... And you need the Sun for not just to run your mitochondria, but also just from a Circadian Biology perspective as well because of Circadian Biology, something I'm very passionate about. But I mean, just like I mean, life is all about polarities.

Dr Jalal Khan [00:34:48] We need to have polarities such as male and female. Contentious topic these days with gender fluidity and all, but there's male and female, there's black and white water itself, which a lot of people regard as life. Water is a dipolar molecule. And so when it comes to Circadian Biology, we need to have light and we need to have an absence of light. We need to have dark. But what's happened is, is that we living in artificial blue light indoors all the time during the day and we're avoiding the Sun and we're wearing sunglasses and we're wearing sunscreen and then come evening time. When the Sun goes down. We should be trying to mimic that. And what we are doing is we are living under this same artificial blue light right up until when we're time, when it's time to go to sleep, we're in front of screens, whether they be TVs, phones, laptops, etc., and we're exposing ourselves to these non-negative electromagnetic frequencies of which blue light is one, Wi-Fi, is another 4G, 5G. We can't really escape that, so to speak, but we can mitigate and we just need to start making better choices about the light environment that we are exposing ourselves to. And by light environment. I'm not just saying the light that we can see, but also the light that we can't see because for instance, when we go to sleep, our brain alpha waves resonate a 7.83 hertz, which is 7.83 waves per second. That's the same as the Schumann resonance between the Earth's core and the ionosphere. But Wi-Fi 2.4 billion waves per second, 2.4 gigahertz. So we've got 7.83 waves, 2.4 billion. So simple 1% changes like turning your Wi-Fi off when you go to sleep. A key to changing your light environment and improving your Circadian rhythm. And this blue light that I was talking about earlier. I mean, that's something which we really need to raise awareness about.

Dr Ron Ehrlich [00:36:56] Hmm. You said something that was I think there was quite a few things you said there that was so important. But one of them and I think this is worth repeating about all-cause mortality. All-cause mortality is a measure of all causes of death. And so all causes of death go up as our exposure to the Sun goes down. Skin cancer may go down. Well done. Well done on skin cancer. But if you die of colon cancer, brain cancer, the breast cancer, you know, like you name any other cancer that people have. Not to mention cardiovascular disease, autoimmune conditions, and you die from any of those. That's part of the all-cause mortality statistic. But skin cancer will go down. So, you know, this is a very reductionist way of looking at things. You mentioned solar. Tell us preparing the body for Sunlight. Tell us a little bit about that. How does one prepare one's? You know, how do we do that?

Dr Jalal Khan [00:38:03] Well, there's got to be some secrets we keep for ourselves. But look, to start with, when I say secrets, secrets that people reach out to us and then we educate them on how to do it properly. But fundamentally, we need more morning Sun. Because when we are exposing ourselves to morning Sun, early morning Sun, watching Sun rises that is predominantly infrared light and little UV, if any, that separates the water inside our body, which acts as a capacitor to absorb UV light later on. There's a lot of factors in building a solar callus. Melanin has a role to play and if anyone wants to reach out to learn more and more than happy to explain them.

Dr Ron Ehrlich [00:38:47] Yeah, yeah. Now that's good. The other thing you said that I think is worth mentioning because you mentioned it right up front and that was that we get our nourishment from food, from Sun food, including water, food and Sun and the Earth. And do you drew that in comparison between our the frequency of our brainwaves when we're going to sleep, the alpha waves, if you like, the 7.83 hertz, which is the same as the Earth's frequency. What a coincidence. Isn't that just What a coincidence? How did that ever happen? You know, like, we've spent millions of years on this Earth and we're in sync with the frequency of the Earth. 7.83 hertz. And then you gave us a statistic about Wi-Fi radiation, which I think I wrote down correctly. 2.4 gigahertz.

Dr Jalal Khan [00:39:40] Yes.

Dr Ron Ehrlich [00:39:41] How much bigger is that... How many millions times more? It's millions times more, isn't it?

Dr Jalal Khan [00:39:46] Billions of times. 2.4 billion ways.

Dr Ron Ehrlich [00:39:50] Yes.

Dr Jalal Khan [00:39:51] Divided by eight.

Dr Ron Ehrlich [00:39:52] Yeah. Which... Why would that even be an issue? You can hardly imagine. You know, I kind of raises an alarm bell for me, thinking we've drifted so far from the Earth's frequency that we've evolved with over millions of years of 7.83, and now we're bathing ourselves in billions times more. And yet we're being told that doesn't have any effect at all. The Sun's what we should worry about.

Dr Jalal Khan [00:40:19] Yeah.

Dr Ron Ehrlich [00:40:22] Oh my God.

Dr Jalal Khan [00:40:23] Go figure. But, I mean, what really happens at a cellular level is that it dehydrates ourselves. It impacts the mitochondria, the ability to produce water. Add to that an absence of Sunlight. So you can't charge separate and structure that water. Add to that calcium efflux from the cells and you just start to get cellular breakdown. And we could go into things like DHA and how that is needed to repair cell membranes and stuff like that. But we get technical. But I mean, really, I mean, it's changing the light environment as we've touched on and I mean, this blue light and what it does to our dopamine levels and melatonin and stuff, it's critical that we address the blue light situation.

Dr Ron Ehrlich [00:41:06] Mm-hmm. Now, you've talked about cells making energy and making water, but cells do even more than that. They produce light. How does that happen and why does that happen?

Dr Jalal Khan [00:41:21] So cells produce light to signal other cells and to signal other tissues via this Quantum communication water highway that I was talking about.

And they're signaling what's going on and they're able to signal other molecules about what's going on, and that molecule might gravitate towards another molecule accordingly. So there are various forms of this ultralow frequency UV light. One for me is the free radicals that are being released from the electron transport chain inside our mitochondria. Another example is how UVA and infrared light are interacting with deuterium in our blood plasma, and that results in the release of UVC light. And I mean, melatonin is a topic that's frequently covered in the health space, but a lot of people are not really thinking from a Physics standpoint that melatonin is made from an aromatic amino acid called tryptophan, which has a peak absorption of 280 nanometres, which is in the borderline UVC UVB range.

Dr Jalal Khan [00:42:28] And the thing is that barely any UVC gets down to Earth from the Sun. We are protected from it by the Earth's surface. If tryptophan results in the eventual production of melatonin as a peak absorption in the UVC range and we are getting a little UVC from the Sun, how are we actually making melatonin then? And that's because we make the UVC light ourselves. And the same goes for dopamine. Dopamine is made from tyrosine, which is another aromatic amino acid, which is that 274 nanometres is its peak absorption. So it's well into the UVC range. So, I mean, it's beautiful to think that we ourselves are emitting light, which is resulting in the activation of hormones to do what they need to do on time in line with Circadian Biology. And I also think just from a social standpoint, you walk into a room, sometimes you get a good vibe or a not-so-good vibe from somebody else. And I interpret that as us reading the light that is being released by that person and our gut... at that gut feeling. Yes, it could be very well coming from the gut, but it's also a water feeling. I think it's our water in our body, sensing that UV, ultra-low frequency, UV light, and deciding is this person something that we gel... someone that we gel with or not? That's pretty cool.

Dr Ron Ehrlich [00:43:55] It is very cool. And you mentioned the gut and of course, our friend Dr Pran Jagannathan, when I asked him, Is the gut the second brain? He disagreed, which resulted in a pregnant pause on my part. I was just waiting for it and he said no, the guts, the first brain, but pushing on. You know, Jalal, you mentioned I'm your mentor,

but, you know, we're kind of rub each other, pat each other on the back here because we've been mentoring each other. And you've introduced me to Quantum dentistry, and I always thought sleep and breathe were foundational pillars, but I now realise Quantum Biology, Quantum Physics part, you know, is foundational. Tell us you are a dentist, as am I. And isn't it exciting to hear two dentists talk? Just basic dentistry? Just, you know, are you brushing and flossing? You know, just we have to put that out for the listener because this is what dentistry is about in the 21st century. Tell us about Quantum dentistry. How does that look?

Dr Jalal Khan [00:44:58] So Quantum dentistry for me is a paradigm of dentistry that I'd like to take the industry towards or play my role in doing so. And it's understanding that the teeth are an important part of the body. And I mean, the mouth is the gateway to the human bodies, the gateway to the gut. That's how we start to interact with it. And yes, there's a very important aspect of jaws and jaw development. How that affects the airway behind jaws have a huge role to play in posture, particularly the lower jaw position. And so all these things are part of the structure with which I look at someone's system. But in addition to that, every tooth sits on a meridian an acupuncture meridian and there's acupuncture meridians are essentially the various Quantum communication highways of the water networks. And so sometimes a diseased tooth or a tooth with pathology could be causing a systemic infection or systemic issue and vice versa. And so Quantum dentistry is looping in not only my understanding of Quantum Biology but coupling that to my clinical abilities as a dentist to just verify whether or not a tooth could be causing systemic issues or vice versa.

Dr Jalal Khan [00:46:18] And it's a very exciting place that we're headed. We have something called a GDV camera, which enables us to measure within 30 to 60 seconds someone's Quantum coherence, and it allows us to see if they're losing light to their environment from any part of their body. And then we're able to correlate that with any signs and symptoms that they report on a medical history questionnaire and discussion. And couple that to what we're seeing in the mouth, for them to see if there's a correlation and sometimes nothing eventuates from it, which is fine, at least we checked. But sometimes we get some quite startling correlations and a dental intervention could have a huge role to play in alleviating someone of a systemic issue.

Dr Jalal Khan [00:47:10] Root canals are a hot topic, and I'm not necessarily completely against root canals. I think they have their place. But if there's a root canal, which might look perfectly good on an x-ray but is in line with a meridian that is upsetting a correlating systemic tissue, then maybe there's an indication to re-examine whether or not that tooth should be removed or not. So that's kind of the approach with which I'm looking at the mouth now. And I think one recent thing which I discovered was as a dentist, I'm sure throughout the years you would have measured the electrical conductivity inside teeth to determine whether or not a nerve is vital to decide if this tooth is exhibiting signs of an infection. But sometimes you find that an entire arch or an entire corner of the mouth has very little conductivity. Too cold or too electrical stimulus. And if someone's entire mouth is low in conductivity, that tells me that they don't have Quantum coherence throughout their entire system because there's just no electrical transduction to the teeth.

Dr Ron Ehrlich [00:48:23] Interesting.

Dr Jalal Khan [00:48:24] If there is an individual tooth, that's a different story. But if someone's entire mouth doesn't have that electrical conductivity, that's a, for me, a red flag about a growing. It's a red flag about a. Am I to start that again?

Dr Ron Ehrlich [00:48:43] No, no, we'll just. You know, you talking about it. Did this out of coherence?

Dr Jalal Khan [00:48:48] Yeah, exactly. For me, it's someone that's decoherent, incoherent, and, you know, it warrants further investigation.

Dr Ron Ehrlich [00:48:56] Mm-hmm. No, no, you we would talk... We met recently, and you pointed out some of the reports, and I'm certainly exploring this myself, this GDV camera, which picks up very, very subtle changes in output from an individual giving you clues. I mean, I think it's it's brilliant. You know, it's very exciting development. So. Now, listen, just before we came on, we were talking about your recent discovery journey into regenerative agriculture and this whole decentralisation of food, etc., etc., and control. And I think, you know, we've done programmes, on globalisation and localisation.

And I think if the last two or three years of the pandemic have taught us anything, relying on global networks to sustain us and keep us in the way that we'd like to become accustomed, it's a little bit tenuous. Tell us a little bit about decentralisation as you understand it.

Dr Jalal Khan [00:50:00] So decentralisation is something which I'm very passionate about and it's it does it has kind of developed over the last couple of years, given what's happened with some of the threats to food security and whatnot. And so rather than wait for the authorities or powers that be... Guide us in the right direction, I thought that it was about time I regained some sovereignty and some responsibility and take matters into my own hands. So I've been quite active in understanding more about what decentralisation looks like and seeking to build a network accordingly. And to me, decentralisation really fundamentally boils down to people taking responsibility for themselves, for their health, for their food security, for their shelter, for their community, and also eliminating any counterparty risk. So that, I mean, if you are obtaining food directly from the farmer, then there's virtually no counterparty risk. If you go and shake a farmer's hand and you go and meet them in person, then you understand. You get to spend a day with them, understand how they're going about doing things.

Dr Jalal Khan [00:51:13] I just did that last weekend and it was such an empowering experience for me. It was such an exciting experience for me that I'm so excited and I'm so excited about knowing who is producing the food that my family will eat, that my children will eat. I was down to Albury, New South Wales at Wolki Farm, and Jacob Wolki, who's the farmer there is just an absolutely brilliant guy and I encourage everybody to see what he's doing as are the likes of Charlie Arnot and others in the regenerative agriculture space because these gentlemen are really taking matters into their own hands with restoring nutrition into the foods that we're eating, reducing the processed nature of food and the chemicals that are being used. And I've spoken a lot about light today, but food is still very important and we need to have nutritious food that is clean, that is good for our microbiome, and it can allow our microbiome to flourish. So building these decentralised food networks, these decentralised networks with health is something I'm very passionate about, and I like to think that there's a

Quantum revolution that is slowly developing as people rouse from their slumber and start to take matters into their own hands. I feel grateful that I have risen, that I have woken up and I hope I can play my role in waking up others.

Dr Ron Ehrlich [00:52:51] Yeah. Yes. Well, look, that's music to my ears and actually talk about music to my ears. There's a truck set right outside my window there, which has... Seems to have fallen on his horn. But anyway, I'm going to push on because we're, you know, we live in a real world and things aren't in the studios. But that is music to my ears because it's been something that I've been passionate about for a very long time. And I realised and I remember Charlie Massey saying, "Sustainability is not enough, because what are we sustaining a degraded landscape?" What we have to do is regenerate it. And we've spoken recently to Zach Bush, who has a whole vision of how that can roll out. Listen, people have been listening to this and it would have piqued a lot of people's interest. It's a great follow on talk from the discussion we had with Jason Bourne Smith that I pulled out of the archives a few weeks ago. If a listener was starting on this journey, what would you recommend for listeners to do? How should they start? What would be some takeaways?

Dr Jalal Khan [00:54:01] I think... I think the first thing would be to get as much morningside... As morning Sun as possible and try and do that every day. And it needs to be naked eyes. So no contacts, no glasses, no sunglasses, naked eyes, morning Sun and ideally as much skin showing as possible because the skin is a solar panel. And so that small change is probably one of the biggest "bangs for your buck", so to speak, in terms of turning one's optimal health journey around and getting this Circadian Biology back on track. And I think on optimal health journey, there is a lot of focus on addition. But I think then also needs to be a focus on subtraction. And so we need to be... Subtractions in changing our light environments at home, turning Wi-Fi off, blocking blue light, particularly after dark, wearing blue light-blocking glasses when we are on deck. And that's very timely, Dr Ron.

Dr Ron Ehrlich [00:54:54] I've got them right here, Jalal.

Dr Jalal Khan [00:54:58] But blocking blue light critical to preserving the

Circadian rhythm that we tried to build in the morning. And then the last thing I'd recommend is start asking questions and start asking better questions, because as you start to question things, the Quantum Realm will lead you to the answers. Fate is something which I regard as Quantum entanglement, and Rumi said many years ago that "what you seek, seeks you." And so if you start to change what you seek, if you start to seek the truth, then it will eventually arrive on your plate. And if you change your light environment and you reduce your blue light, you will be high on dopamine. Then you will be able to see the truth when it's presented in front of you.

Dr Ron Ehrlich [00:55:46] Hmm.

Dr Ron Ehrlich [00:55:47] What a great note to finish on, Jalal. Tell me, where can listeners find you? Where can people find you? Tell us.

Dr Jalal Khan [00:55:56] I'm on social media, Instagram and Twitter. K2calibre. CALIBRE is my handle. I'd appreciate if you guys like what I'm talking about to share it and spread the word. Because if I'm honest, I'm not really big on followers. I don't even like the word followers. You're members of my tribe, so to speak. But it's more about spreading this important message of Quantum Physics, Quantum Biology, Circadian Biology, and really highlighting and illuminating the truth about what it takes to be optimally healthy, free of dogma, all based in Physics and truth.

Dr Ron Ehrlich [00:56:36] Jalal, thank you so much for joining us today and sharing so much with us.

Dr Jalal Khan [00:56:41] It's an absolute pleasure, Ron. Thank you so much for having me.

Dr Ron Ehrlich [00:56:43] Now I start every podcast with an acknowledgement to country and honouring our First Nations people. And I've also I've always done that because of the fact that I firstly truly believe we should acknowledge that in Australia we have, have, have a terrible record of how we have dealt with and treated our First Nations people, and they have been extraordinarily gracious and forgiving and I really believe we have so much to learn about the connection with the land and their respect for it and for each other. In fact, for the whole universe,

it's all connected. And here we are exploring something so fundamental that, you know, this is about how we have evolved as a living being of any living being. We have evolved on an Earth that, well, I love Jalal's, that he is downloading from above and uploading from below. And that is how we have evolved. We have evolved by being able to do both of those things, downloading from above the sunshine and drawing all of its energy and its effect on every single cell in our body and uploading from the Earth on which we have walked for millions of years. And we have become so disconnected from those two major forces that it has led to disease.

Dr Ron Ehrlich [00:58:14] And if we are wanting to explore health and wellness and this is what I found so inspiring when I met Jalal, I just felt that, you know, I felt I had a holistic model of health care with all of the stresses on one hand and all of the pillars on health on the other with our genes and how our genes express themselves, on which the whole balancing beam pivots, but fundamental to every single stressor and every single pillar and every single gene and how they express themselves in the body is how a cell functions and the influence that the Sun and the Earth have on that. And the way we have tried to change that. And, you know, look, I love all the technology that I am surrounded with. But as I said, I know and I actually do use these blue-blocking glasses when I sit at my desk and on my phone, I have an iPhone. And if you go to access your settings and I'll just walk you through this now because I think it's a particularly good thing to do. You go to Settings, this is an iPhone, you go to Accessibility, you go to Display and text and you scroll down. You really have to look for this, don't you? And you go to colour filters and you'll know that it's switched off, but you can switch colour filters on and go then to coloured tint and you can adjust the intensity. And once you've saved that three short clicks on the side of your iPhone will give you access to switching that on and off at leisure. So again, I'll go through that again because I do think it's worthwhile. Settings, Accessibility, Display scroll down to colour filters and then activate colour filters and you will have put a colour filter onto your phone, which you can turn on and off very quickly with three clicks.

Dr Ron Ehrlich [01:00:18] And there is something that is you're looking at all day and many lot of the night and that is affecting your Melanox and receptors in your eyes particularly, but also your skin. And the other thing is

the LED lights. Now he mentioned incandescent lights, which you may remember, the light globes we used to have as we went... when I was growing up, they would be hot and they were hot because they were down the red end of the spectrum which generated heat. And here we have now LED lights that lasts forever or a long time. And they are cool and they are blue because they are down the blue end of the spectrum. But of course we are bathing ourselves not just in the technology we keep surrounding ourselves by, but in the way we choose to light. Our houses in this light, which has an ongoing effect. Look, this is a huge issue. Now, Jalal is really inspirational character because he often... He has formed this Dental Truck and as he says in the... His on the website and we'll have links to his website. You know, in the city we have lots and lots of dentists available, but in outback Australia we have often times none in remote communities. So he has a fully-fledged clinic on wheels where he and his team cross the outback from village to village and provide dental care to amazing people in spectacular places. How's this for a quote? "The truck is an adventure in dentistry." Yes. Jalal is a dental nerd. An inspiring one, I would add. It's about exploration, self-development, and helping people. It's the perfect way for Jalal to fulfil the promise he made to his children that he will always strive to be the best possible role model he can be. Now, Jalal, his Instagram account is @k2calibre. That's @k2calibre. And I think it would definitely be worth following and I'll have links to his Dental Truck. I hope you enjoyed that conversation. I hope this finds you well. Until next time. This is Dr Ron Ehrlich. Be well.

Dr Ron Ehrlich [01:02:37] This podcast provides general information and discussion about medicine, health and related subjects. This content is not intended and should not be construed as medical advice or as a substitute for care by a qualified medical practitioner. If you or any other person has a medical concern, he or she should consult with an appropriately qualified medical practitioner. Guests who speak in this podcast express their own opinions, experiences and conclusions.



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