

# I SAW THE LIGHT

BY DANNE MONTAGUE-KING

Several years ago one of my articles was turned down by an American aesthetics magazine because I was attacking the new photo-facial anti-ageing machines which US doctors and therapists were going mad over. According to the then editor, there were several companies advertising such machines and she was fearful they would drop their account. (That people would believe me more than expensive adverts is flattering to say the least!)

Photo facials promised not only to lift sagging tissue, but remove hyper pigmentation, “peel” the skin and, basically, rejuvenate everything. The machines were also expensive. What bothered me the most was the lack of information (forget solid scientific evidence) of how the machines actually worked. I would hear “plumps up skin cells, increases collagen, and rejuvenates older cells” etc., but nothing on how this phenomena actually DID all these things.

Then there were the “thermal effects”. It was the thermal effects that “shrunk” muscle tissue so it would tighten the skin. Any mortician can tell you what happens in the first ten minutes of cremation. The corpse will writhe and even “sit up” as if it were alive—yet it is just the muscles shrinking due to the “thermal effects” of the flames—shrinking then breaking and withering away. The thought of any long-term light

treatment doing the same thing to muscles on a live client is too grim to even entertain.

Several other doctors and specialists starting questioning all these so-called rejuvenative light machines and I pretty much starting ignoring the entire craze for bigger and better (or smaller and cheaper) LED light therapies. Permanent hair removal via laser put THAT nail in the coffin for me—especially after 10 treatments - and my hair is the same intrepid fuzz it always was!

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This changed however when I ran into Dr. Bill Johnson, an old friend, at a booth at the Las Vegas beauty exhibition last year.

I had not seen Bill for a very long time—since we shared a clinic in Chicago in the ‘80s. Knowing him to be a pragmatic age management practitioner, I asked him what he was doing at a beauty show in Vegas.

He quickly introduced me to his colleague—a taciturn individual in a wheelchair who happened to be a scientist on the NASA rocket programme and had invented a light machine called Quantum Warp devices. Although the man was not severely handicapped, something in his eyes reminded me of Stephen Hawking—that far-off look of someone who sees beyond the norm.

I looked at the display and the posters and said “Oh Bill, not another thermal effect device?” at which he replied “No—these radiant low level lights react directly to the mitochondria!”

That was all I needed to hear to become interested. I have been studying ways to energise the mitochondria for 40 years, inasmuch as it is the very battery pack that keeps our cells, all cells, alive and functioning.

After introducing me to the scientist (somewhat of a curmudgeon, as most brilliant men are) I discovered that Quantum Warp uses high emission alumiferous luminescent substrate technology—which means their LEDs drive a light radiance 4.5 times harder than the industry standard—a near infra-red for increasing energy inside cells.

I purchased two of the devices on the spot, one smaller unit and one larger for professional work, and took them home to test.

Since then, a year later, I have used the devices for medical and surgical reasons—mainly following a traumatic benign neck tumor operation I survived a few months ago and pain-related reasons,

namely a slipped disc in my upper spine and also as a pre-treatment for all of our enzymatic face and skin revision protocols. The differences in pain and no pain and skin tensor using the light devices became increasingly apparent with each usage.

But I am a pragmatist—that annoying person who, in college, drove his professors mad by constantly asking “why-how?” for each exact statement that came out of their mouths and, more often than not, I wanted exact details! I seldom go on faith alone—except for the faith that the Universe somehow DOES have our order and if we are smart enough to place it we will usually get what we order in some manner.

So it was with the Quantum Warp devices. I asked the company for more scientific data and back-up, and immediately got it! In fact, far too much to include in this article. I was also highly flattered on a late August afternoon when I received an email from the President of the company herself, asking me if I would kindly be part of the re-design of the shape of the machines. I had made a big point of this at the Vegas exhibition: even though highly effective, the actual machines were boxy, hard to administer to the face and not aesthetically pleasing enough to attract therapists. I had been through this before years ago when I first got into electromagnetic therapy and my partner in the UK, Malcolm Clark, a brilliant engineer, nevertheless had very basic ideas about the package our EMW therapy came in. I call this “the British Box” and these designs have not changed in a hundred years!

Even now, as I am writing this, my mind is whirling; “What do I tell this lady from Quantum Warp—what kind of design can I come up with?”

The science behind the Quantum Warp technology started over 75 years ago with the German biochemist Otto Warburg. In 1931 Dr. Warburg conducted ingenious experiments by which he discovered the enzyme that initiated the first critical step of cell respiration, the process that turns energy into chemical compounds and again, into energy that the cell recognises as “fuel.”

The enzyme he identified is cytochrome oxidase and has led to a new understanding of how a cell's energy metabolism affects disease and health.

To extract energy from molecules, the cell breaks down glucose into simpler molecules (glycolysis). It then carries these molecules into the mitochondria—which strips electrons from them to produce energy with help from oxygen piped to the mitochondria via our peripheral capillaries.

Cytochrome oxidase controls the last reaction in this process.

Warburg used light to measure oxygen consumption and discovered that the enzyme belonged to a group of proteins that included haemoglobin and chlorophyll.

This entire project died out over the years, but Warburg's discoveries are now again on the ascendant. Further research has brought to light the fact that not all free radicals are the evil vampires we have believed them to be. Some free radicals (such as P53), are proteins that actually kill off cells if they show signs of cancer! There is also a process of blocking respiration that involves carbon dioxide and nitric oxide—once thought harmful to cell life—but now viewed as respiration blockers on a POSITIVE note! This blocking mechanism of slowing respiration in one area to divert oxygen elsewhere in cells and tissues prevents oxygen levels from falling dangerously low.

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It is not fully known what is in control of these complex mechanisms—but we do know that near infra-red light (NIR) plays a big part.

Light (especially sunlight) has long been known to promote wound healing. But the effects of light can be more than skin-deep. At long wave lengths, (670nm) the NIR spectrum, photons may penetrate several centimeters into the body. According to photobiologist at the Russian Academy of Science in Moscow, Tiina Ksaru, NIR rays in exactly this range will modulate cell respiration and the signals it generates.

According to Guy Brown, another biochemist at Cambridge University, UK, they have shown that light can reverse inhibition caused by nitric oxide binding to the enzyme cytochrome oxidase both in the mitochondria and whole cells. They also assessed that light can protect cells against nitric oxide death.

The Quantum Warp is basically photobiomodulation therapy. This describes the process of modulating the organelles of the skin and body with wavelength-specific photon energy to increase respiratory metabolism, reduce natural inflammatory response (vital in acne and rosacea cases) and accelerate the recovery of injury or stress at the cellular level and increase circulation. Everything a

healthy skin needs to stay younger and full of natural defense mechanisms.

This also includes trans epidermal water loss (TEWL) the very essence of hydration our skin needs to look naturally moist and plump—rather than red, coarse and dry. There appears to be an immediate homeostasis of available water in the tissue after 88 seconds of light exposure—equalising areas where the intercellular water pressure may be too low with an area where it is too high—bringing about a balance of available water in tissue.

There is also evidence of collagen production being accelerated in cases of older skin and the matrix of the skin with its bi-layer lipids, chondroitins and essential fatty acids being held in place longer. This is the very matrix of the skin that gives it the turgidity and “bounce” it has when we were younger. As we age, this matrix gets thinner and thinner and the skin becomes crepey, scaly and “chicken-like”.

I am not a machine person; I have always worked with a hands-on approach and chemistry. Yet I did become passionate about electromagnetic therapy 20 years ago.

After exhausting a lot of research money in cumbersome and unreliable machine production, I finally interested an Australian company to take on this remarkable science and bring sophisticated (and aesthetically pleasing) machines to the therapist and the doctor—equipment that is also affordable.

But I am not going to even attempt becoming involved with the manufacture of the Quantum Warp—(outside of some ideas regarding re-designing the British Box!) Firstly, I am far too old to go trotting down any more pioneering roads. Secondly, they have HEAVY patents on everything and all FDA, EU and foreign documentation in place (a nightmare of every manufacturer) and thirdly, why try to re-invent a very good wheel?

This type of science is very precise because it has to be so user-friendly, unlike lasers, which can cause damage. It is not easily knocked off, even by a rocket scientist – even though one created it in the first place. **PB**  
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