

# Structured water is the life of cells

## Introduction

Over 95% of our body is water. In order to stay healthy, we have to drink good quality or natural water. Water has consciousness and therefore the awareness to receive, store and transmit information at a cellular level.

Our DNA is made out of the same DNA of all living things. Therefore, we have a common destiny with all living things. We are all from the earth, and when earth, water and atmosphere are corrupted, then it will create its own reaction. The *mother of life* is reacting.

For example, in the Hopi (Indian) prophecy *they say the storms and floods will become greater. To me it is not a negative thing to know that there will be great changes. It is not negative it is the evolution of the Earth as a living thing. When you look at it as evolution, it is time and space, and nothing stays the same. You should learn how to plant something in the soil because that is the first connection. You should treat all things as spirit, realise that we are one family. It is never the end as there is no end to life.*

In 1979, a young professor of bioelectronics at the University of Edinburgh published a book titled *Dielectric and Electronic Properties of Biological Materials*. The earlier work of Eley and Arnold had been criticised because the activation energies they had measured, ie. the amount of energy necessary to make proteins conduct electricity, seemed to be too large. Supposedly there was not enough energy available in living organisms to lift electrons into the conduction band. Proteins might be made to conduct electricity in the laboratory, said the critics, but this could not happen in the real world. Eley and Arnold, however, had done all their work on dried proteins, not living ones. The young professor Ronald Pethig pointed out the obvious: water is essential to life, and proteins become more conductive if you added water to them. In fact, studies had shown that adding only 7.5 percent water increased the conductivity of many proteins ten thousand-fold or more. Water, he proposed, is an electron donor that *dopes* protein and turns them into good semiconductors.

The electronic role of living water had already been noted by others. Physiologist Gilbert Ling, realising that cell water is a gel and not a liquid, developed his theory of the electronic nature of cells in 1962. More recently, Gerald Pollack, professor of bioengineering at the University of Washington, has taken up this line of investigation. He was inspired by Ling when they met at a conference in the mid-1980s. Pollack's most recent book, *The Fourth Phase of Water: Beyond Solid, Liquid, and Vapor*, was published in 2011.

The late geneticist Mae-Wan Ho, in London, has clothed Szent-Gyorgyi's ideas in *garments* that all can see. She developed a technique using a polarising microscope that displayed, in vivid colour, the interference patterns generated by the liquid crystalline structures that make up living creatures. The first animal she put under her microscope was a tiny worm - a fruit fly

larva. She wrote in 1993 in her book, *The Rainbow and the Worm: The Physics of Organisms: as it crawls along, it weaves its head from side to side flashing jaw muscles in blue and orange stripes on a magenta background*. She and many others have urged that the liquid crystalline properties of our cells and tissues not only teach us about our chemistry but have something special to tell us about life itself.

Wlodzimierz Sedlak, pursuing Szent-Guorgyi's ideas in Poland, developed the discipline of bioelectronics within the Catholic University of Lublin during the 1960s. Life, he said, is not only a collection of organic compounds undergoing chemical reactions, but those chemical reactions are coordinated with electronic processes that take place in an environment of protein semiconductors. Other scientists working at the same university are continuing to develop this discipline theoretically and experimentally today. Marian Wnuk has focused on porphyrins as key to the evolution of life. He states that the principal function of porphyrin systems is an electronic one. Jozef Zon, head of the Department of Theoretical Biology at the University, has focused on the electronic properties of biological membranes.

Oddly enough, the use of porphyrins in electronic products instructs us about biology. Adding thin films of porphyrins to commercially available photovoltaic cells increases the voltage, current, and total power output. Prototype solar cells based on porphyrins have been produced, as have organic transistors based on porphyrins.

The properties that make porphyrins suitable in electronics are the same properties that make us alive. As everyone knows, playing with fire is dangerous; oxidation releases tremendous energy quickly and violently. How, then, do living organisms make use of oxygen? How do we manage to breathe and metabolise our food without being destroyed in a conflagration? The secret lies in the highly pigmented, fluorescent molecule called porphyrin. Strong pigments are always efficient energy absorbers, and if they are also fluorescent, they are also good energy transmitters. As Szent-Gyorgyi taught us in his 1957 book, *Bioenergetics, fluorescence thus tells us that the molecule is capable of accepting energy and does not dissipate it. These are two qualities any molecule must have to be able to act as an energy transmitter*.

Porphyrins are more efficient energy transmitters than any other of life's components. In technical terms, their ionisation potential is low, and their electron affinity high.

They are therefore capable of transmitting large amounts of energy rapidly in small steps, one low-energy electron at a time. They can even transmit energy electronically from oxygen to other molecules, instead of dissipating that energy as heat and burning up. That is why breathing is possible. On the other side of the great cycle of life, porphyrins in plants absorb the energy of sunlight and transport electrons that change carbon dioxide and water into carbohydrates and oxygen.

More than a hundred years ago, Rudolf Steiner wrote the following: *In the future, **we will eliminate the soul with medicine**. Under the pretext of a **healthy point of view**, there will be a vaccine by which the human body will be treated as soon as possible directly at birth, so that the*

*human being cannot develop the thought of the existence of soul and Spirit. To materialistic doctors, will be entrusted the task of removing the soul of humanity. As today, people are vaccinated against this disease or that disease, so in the future, children will be vaccinated with a substance that can be produced precisely in such a way that people, thanks to this vaccination, will be immune to being subjected to the **madness** of spiritual life. He would be extremely smart, but he would not develop a conscience, and that is the true goal of some materialistic circles. With such a vaccine, you can easily make the etheric body loose in the physical body. Once the etheric body is detached, the relationship between the universe and the etheric body would become extremely unstable, and man would become an automaton, for the physical body of man must be polished on this Earth by spiritual will. So, the vaccine becomes a kind of arymanique (sweet smelling) force; man can no longer get rid of a given materialistic feeling. He becomes materialistic of constitution and can no longer rise to the spiritual. **Rudolf Steiner** (1861-1925)*