Anti-Aging by longitudinal magnetic waves: A new approach by modulating ATP-Levels

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Abstract

Mainstream medicine usually uses drugs as remedy that are expected to interact biochemically with the body’s cells to achieve its healing goals. For this purpose, the drug is usually applied orally or topically, as it must come into close contact with the target cells in the body to act according to the biochemical paradigm.

In this context, the question arises, whether longitudinal electromagnetic waves (SW), which have been described as carriers of energy and information in several publications [1,2], are able to cause energy increase (measured by ATP-increase) in the mitochondria of a plant. Since mitochondria exist in the cells of plants as well as in those of animals and humans, and their product - ATP - is the same and indis-pensable for all life processes, the results of this research could also be important for medicine. Moreover, it should be elucidated whether the information of a drug could be transferred using SW [3-6].

Materials and methods

As a generator for scalar waves in our experiments a recent development of Meyl's experimental set, the so-called “cell radio” was used at a power of 10 mW for 90 sec (Figure 2, left picture). As a biological substrate we used the flowers (blossoms) of the plant Ipomea (Ipomea purpurea). The flowers were attached to the 'handle' of the cell radio (at a length of their stems of about 10 cm) with the help of wet paper pulp, so they could well respond to the frequency pulses. A one-time transmission of a SW-pulse (90 sec) with about 6.7 MHz at the transmitter power already mentioned of 10 mW to the closed bud provided the plant with the necessary SW-pulse.

Two series of experiments were carried out: In series 1 of the experiments, the described SW pulse without any modulated information was used for the Ipomea purpurea - selected as a model plant for aging because of its relatively precise senescence process within 24 h. As parameters for the aging process the blossom diameter (in cm) and the ATP content of the individual blossoms in the different stages (Figure 3), based on the weight of the blossom (in g, without stems and sepals) were taken.

In series 2 of the experiments, the SW-pulse was modulated using as information source various biochemicals (e.g. ATP, ubiquinol, ...
fullerenes) and various nutrients (resveratrol, curcumin, pomegranate, blueberries, olive, oligenola, olive leaf extract, red wine, radish, onions, garlic juice). They were positioned in a liquid form upon the coil in the middle of the experimental set (Figure 2, left picture, the circular part right of the antenna). The blossoms of the Ipomea used were in the bud-stages.

After determining the weight, each blossom was individually macerised by a mixer (18,000 rpm, 2 min) in 300 ml distilled water. Subsequently, an aliquot of 100 μl was taken in order to measure the ATP content in a luciferin/luciferase system ([Link](https://flexion.doccheck.com/luciferin-luciferase)). The result is given in so-called RLUs (=Relative Light Units on a linear scale).

### Results

**Using SW-treatment without information**

**Flourishing process with/without SW:** Figure 4 shows that the different stages of flowering are correlated with a change in the diameter of the blossom (in cm; Figure 4, blue columns = control, red columns = SW). The application of the SW pulse resulted in an increase of the diameter by about 20% compared to the control (from 4.8 to 5.8 cm, at 7 am and 9 am). Moreover, we measured an extension of the senescence period by 2 h, since this reduction of diameter of blossoms as an indicator of aging begins at 11 am in the controls (blue) but at 1 pm in SW-treated blossoms (red). This is a difference of 2 h, almost 10%, with respect to the total lifespan of the blossoms.

**Modulation of ATP:** As we see in Figure 5, due to a single SW-pulse, the ATP-content of the bud was initially raised by about 40% against the controls, which however decreases afterwards to a final ATP-content at the wilted stage, which is identical then with that of untreated plants. This initial ATP-difference of 40% is consistently ‘consumed’ along the opening of the SW treated buds. The withering process of SW-treated buds is prolonged by about 2 hours in contrast to controls (Figures 4 and 6). Thus, the initial excess-energy (Figure 5) is consumed for an extended flowering process and a lifespan extension by about 10%.

**Change of colour:** Another finding is the difference in colour comparing SW-treated flowers with the controls at the same stage. Both Ipomea plants (treated/untreated), harvested from the same shrub showed the same red colour at the beginning of the experiment (at 9 am (Figure 4), but only the SW-treated blossoms changed their colour from red to deep violet (Figure 6, right).
Since the Ipomea purpurea blossoms contain anthocyanidines which are known to change colour like shown in Figure 7 [6], due to a change of the pH-level, a change from a phenolic to a chinoidal stage seems also to have happened, triggered by the SW-treatment.

**Using SW with additional information**

While the first series of experiments only used the pure SW-energy, in the 2nd series we applied ‘energy + information’ (means informed resp. modulated SW). The information source (various liquid polyphenolics) was located upon the coil of the transmitter set as described in ‘Material and Methods’.

Figures 8-10 show the ATP-increase (between 15 to 82%), triggered by SW-pulse, which was ‘informed’ by different polyphenolic sources in contrast to samples with SW alone.

Figure 8 shows the effects of ATP-solutions, acting as information sources, diluted by a factor of 100 (D9, ~0.5 µMol ATP), 1000 (D12) and again 1000 (D15) compared with ATP-D7. This results show that information of a homeopathic ATP solution increased the ATP-levels between 15% (ATP-D7) to 68% (ATP-D9) again, in comparison to the ATP-level given by an SW-treatment alone.

Figure 9 displays the results of the ‘energy + information’ experiments using the following nutrients as information sources:

- pomegranate seed extract (+31%), blueberries (+22%), olives (+33%), olibenolin (+25%, a liquid water extract of the olive extraction process), olive leaf extract (+82%), red wine (+17%), radish extract (+51%), onion extract (+31%) and fresh garlic extract (+38%).

In Figure 10 the additional ATP-increase is demonstrated which is due to the additional ‘information’ of ubiquinol (+63%), ATP-D9 again as a ‘standard’, curcumin (+57%) and fullerenes (+70%, a fullerene is as molecule similar to a hollow sphere, like a football, consisting of a mesh of regular hexagonal rings).
Discussion

Since ATP as the ‘energy-currency’ of plants, animals and humans is produced in the mitochondria as a result of a functioning respiratory chain, the intervention of the longitudinal waves is hypothesized to take place there. In some earlier papers it was proposed, that mitochondria, located inside tunneling nano tubes are able to form a connected structure in order to exchange energy and signals (information) between cells electrically or electro-magnetically [7,8].

Along the respiratory chain in the mitochondria reduction equivalents of NADH via co-factors reduce the oxygen from the air to water. To synthesize ATP, four defined enzyme complexes transport electrons through the inner mitochondrial membrane, which at the end of the chain reduce oxygen to water. The simultaneously released protons are pumped into the intermembrane space. The resulting proton gradient is the prerequisite for the formation of ATP via the ATP synthesize complex. There is a necessity for the presence of a number of co-factors for the respiratory chain in order to function, e.g. CoQ10 (ubiquinol) plays a key role as an electron donor. Without ubiquinol, ATP is not sufficiently provided to the cells [9]. If the respiratory chain does not work sufficiently along the 4 complexes , resp. a single mechanism is blocked as a result of diseases, aging processes or drugs, environmental toxins, electro smog, nitrosative stress, the reduction to water may be interrupted and intermediates like the reactive oxygen radicals (ROS) are built up as the source of oxidative stress. Thus, the functioning of mitochondria including the respiratory chain is hypothesized to take place there. In some earlier papers it was proposed, that mitochondria, located inside tunneling nano tubes are able to form a connected structure in order to exchange energy and signals (information) between cells electrically or electro-magnetically [7,8].

Thus biochemical processes are assumed to be selectively triggered due to resonance conditions because of the similarity of the participating biochemical structures. In this way one can imagine that an ATP signal causes more ATP in the mitochondria.

A further process, which is shown in Figure 12, can also contribute to an increased ATP-production: An excess of rotational energy can also cause electrons to loose the mesomorphic attachment, as shown by the red arrow in Figure 12. In this case, the number of free electrons increases contributing to a higher ATP-amount in the mitochondria. Thus, the release of electrons is stimulating the efficiency of mitochondria and antioxidative effects simultaneously.

The observed colour change of the blossoms (from red to a deep violet) reflects the transition from a phenolic to the quinoidal state of anthocyanins, contained in the red/purple blossoms of the Ipomea (see Figures 6 and 7), resulting in the release of electrons.

Question 2

The question of why an ATP increase extends the lifespan of the flower by almost 10% could be explained by the increased availability of the ‘energy currency’ ATP. Since ATP is necessary for all biochemical processes, it should be hypothesized that an external SW-pulse translated into more ATP also produces more protective enzymes within the mitochondria. Ultimately, this relative abundance of ATP also supports a prolonged protection of the mitochondria themselves, which also results in an extension of the lifespan of flowers.

Question 3

The 3rd question about the kind of a transport-mechanism for information via an SW-pulse is innovative in this area.

The SW-pulse was hypothesized to be absorbed via mesomery, typical for organic ring molecules of plant polyphenols, such as the anthocyanins.

On this basis of the response to a SW pulse, a phenolic ring can act as an antenna, as a buffer or as an energy source for further pulses. Thus biochemical processes are assumed to be selectively triggered due to resonance conditions because of the similarity of the participating biochemical structures. In this way one can imagine that an ATP signal causes more ATP in the mitochondria.

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anthocyanins. Polyphenols - like resveratrol (e.g. in red wine), quercetin (e.g. in onions) or CoQ10 - are assumed to function as 'antenna molecules' absorbing, storing and releasing the energy of SW pulses. Subsequently, these energy pulses get modulated if they are taking up specific information incorporated in polyphenolics. They also seem to be transferred via co-factors, within the respiratory chain, e.g. CoQ10, thus stimulating the electron flow. This phenomenon is correlated with an increased ATP level optimizing the functionality of the mitochondria and the biochemical processes concerning polyphenolics.

As shown in Figure 8, the degree of dilution of liquid ATP plays a key role in producing ATP. In contrast to the D9-ATP dilution (+68% ATP) the other dilutions (D7, D12, D15) produced only between 15% to 39% ATP. Obviously, the relative degree of freedom of molecules in the dilution is a kind of prerequisite for the quality of signalling.

As shown in Figures 9 and 10, phenolic structures have the potential to increase ATP production. The substances in Figure 9 are nutrients consisting of mixtures of polyphenols, which result in an ATP-increase induced by the degree of polyphenol-mixtures as well as their dilution.

From Figure 10 it is concluded that there exists a positive correlation between the number of phenolic or benzene and pentose rings in the information source and the increase of the ATP level in the biological recipient. However this correlation - as an effect of mesomerism - seems to be weakened additionally by the electromagnetic specificities of adjacent rings. Further research in this area is necessary [10].

Question 4

In summary, sending biochemical information to a biological recipient using an SW-pulse could be a rather innovative enhancement of medical applicability. Information transmitted by SW reaches all cells of the biological recipient and it seems to achieve this effect faster. This is explained by the time-consuming necessity for the drug to permeate the membranes of the recipient, whereas the information via SW-pulse is received 'immediately' in the target-cells. The higher efficacy of the SW-pulse is also supported by the findings of nanotubular intra- and intercellular cell-connections and the mitochondria located inside those tubes [7,8]. These nanotubular structures are 'waveguides' also known from the function of SW in DNA and discussed in Meyl [1,2]. In the future further research is necessary to strengthen the hypothesis made here and to apply these data for medical advancements.

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