A NEW APPROACH TO AGING FACTORS Could we manage them?

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ho has never dreamed of no longer aging and passively suffering the ravages of time linked to the progressive decline of all our structures and functions?

As "biohacker" you have long understood that there are different ways and solutions to slow down this deterioration process. Indeed, an entire field of integrative medicine is devoted to the best possible management of aging and the improvement of longevity.

You are therefore well aware of all these avenues of aging and the paths that lead to them and you have certainly started a biological quest for the control of your hygiene of life in order to use solutions slowing down this process.

The good news is that we have new ways to combat some of the factors that contribute to aging.

Among the **dysfunctions of the major systems involved in age-related changes**, we will name three, deserving of more complete development:

1. Disorders linked to the hormonal system (melatonin, ACTH, cortisol, steroid hormones, etc.);

2. Disorders of the oxidative stress management system (balance between the production and neutralization of free radicals, or R.O.S which means "reactive oxygen species");

3. Deregulation of the immune system (white blood cells, antibodies).

Much of aging can be illustrated by the fact that we "rust", like metal exposed to oxygen.

In future articles, we will expand on each of these deregulations, but let's place these benchmarks here for a better understanding.

Over time, our proteins are deformed and undergo glycation, our lipids become rancid and rigid. Glycation is a natural process in which the sugar in your bloodstream attaches to proteins, forming new, harmful molecules called "advanced glycation end products" - ironically, from the English "Advanced Glycation End products" (the AGEs).

There are many feedback loops between the elements involved in this development. (See graphic below Fig. 1).

Among these interdependent factors, **melatonin** occupies a central place¹:



Fig 1: Feedback loops showing interactions of melatonin with major systems

The man-made electromagnetic fields in our environment disrupt all of these systems and will therefore most likely accelerate the aging process, in the same way that long-term overexposure to the sun can damage our cells.

In this context, the studies carried out by the COMOSYSTEMS laboratory, while validating the effectiveness of CMO technology, describe a normalization of all these disturbed parameters, suggesting the possibility of a phenomenon of slowing down aging through global systemic optimization.

The new possibilities for optimizing health offered by C.M.O. oscillators:

HEAT SHOCK PROTEIN (H.S.P.), A RECOGNIZED MARKER OF CELLULAR STRESS

The oxidative stress associated with EMFs leads to DNA damages which are involved in the aging process. Aging is also linked to the deterioration of the conformation of all the proteins that constitute us, a phenomenon accentuated by electromagnetic pollution.

We have shown in studies on Drosophila (model used in many experiments) that cell phone exposure leads to a significant increase in HSPs (heat shock proteins), chaperone proteins responsible for repairing a spatial misconfiguration of structural proteins.



Fig. 2: Stress protein H.S.P 70 : Heat Shock Protein

We observed that this hyperstimulation, in a situation of exposure to artificial EMFs, led to protein lesions, and finally to an over-secretion of the specific proteins responsible for their repair: the "H.S.P" stress proteins.

The presence of the CMO compensation oscillator in this experiment restored HSP production to an almost normal level, presumably indicating the normalization of protein structure². (Fig. 2)

MELATONIN

The major integration center that brings together all of the above components is undoubtedly the pineal gland or epiphysis located at the base of the brain with melatonin as the main secretion. Melatonin is best known as a sleep inducer, secreted during times of absence of light. It contributes to a better quality of sleep (deep sleep) with major antioxidant properties and chrono-modulating properties of many other hormones. As such, it is a major hub for the management of optimized aging and its physical and psychological consequences.

Two phenomena are involved in the decrease in the secretion of this hormone: age itself, with a gradual decrease in hormonal secretion in the general population (see fig. 3)³:



Fig. 3: Age-related melatonin production

The second important factor in the deregulation of this hormone (with a tendency for reduced secretion) is the exposure of individuals to artificial electromagnetic fields. Many studies show the decrease in melatonin production in the presence of electromagnetic fields from Wi-Fi and cell phones.^{4,5,6,7,8}

In a meta-analysis study, the author hypothesizes that: "The pineal gland is likely to sense E.M.Fs like light but, therefore, may decrease melatonin production".⁹

How to optimize your melatonin secretion?

We have shown, through our Tecnolab-COMOSYSTEMS laboratory, the very marked drop in melatonin secretion in mice exposed to cell phones (Fig. 4).

The use of C.M.O. technology, in the presence of exposure to electromagnetic fields from a cell phone, shows a normalization of melatonin levels in animals exposed and therefore protected by it. Direct extrapolation of these experiments carried out under conditions of maximum use would be hasty, but nevertheless gives us a good indication of the important role that C.M.O. can play in the production of melatonin.¹⁰



Fig. 4: Production of exposed and protected melatonin

Conclusions:

The use of C.M.O protection technology from COMOSYSTEMS makes it possible to count on a return to normal of two of the most important biological factors:

- 1. Heat Shock Proteins
- 2. Melatonin

These are significantly involved in the evolutionary process of aging.

This hormonal and protein improvement will likely lead to a decrease in the rate of onset of signs and symptoms of organic and psychological aging.

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