Lecture subject: “Mitochondria DNA mutations in Ageing and Degenerative Diseases – Iridology Profile and Treatments”

**Focused points:** Ageing is one of the greatest challenges to men, which has always been looking for rejuvenation and for the youth fountain. But looking first inside of your body we realise that it is a miracle complex machinery ruled by some incredible systems and even some direct connection with our environment. This is a whole concept where the mind and the spirit play a pivotal role together with the physical body. However its biological condition leads to some natural physical and psychological changes and deterioration called ageing.

Ageing is a normal event of human species with cumulative process of damaged body constituents, brain dysfunction with loss of brain cells, neurons communication, which slowly affect learning and memory function.

Genetic events, hereditary factors, health status, our diet style are probably some of the subjective factors of ageing and biological ageing. This evidence shows me that some deterioration may appear not only different from one person to another, at the same age, but also even before the normal chronological age, and visible amount middle age and younger individuals with related symptoms.

While practicing iridology, I saw the great advantage to observe the constitutional weakness and the body dysfunction as a whole, and what can be determined in advance allowing for prevention care.

However focusing new conception new assessment test, strong evidence shows that both ageing and cancer are implicate with major oxidative stress at molecular level. And that may complete our iridology scanning and diseases theory as though by the naturopathic system.

Oxidation happens everywhere in our body because oxygen is everywhere for aerobic life and some necessary oxidative processes. But at the same time it produces the so-called ox-radicals and superoxide, which has tendency to accumulate with age and be a damage to our cell components.

Other sources of oxidation damage (free radicals) are the ozone, radiation, day and electric light, air pollution, tobacco that decrease the redox potential, cause serious nuclear DNA damage and be source of ageing and cancer.

However our body is quiet prepared to fight against the excessive production of oxygen reactive metabolism, since cells (include animals and vegetables) are equipped with specific enzymes which protect and control against those toxic damaging molecules.

As an example, the enzyme superoxide dismutase-SOD, discovered in 1968 by Irvin Fridovich and McCord, is now focusing the interest of the international scientific community, as the agent capable to preserve our body from most of the chronic/degenerative diseases and as the therapy to treat those diseases.

A number of studies show that the stronger the SOD activity is, the longer the lifespan potential is.

Some other interesting studies have demonstrated those individuals with a family history of heart disease and cancer, but without the disease themselves, have lowered SOD defences compared to individual with no family history.

Thus SOD could be the missing link in cancer, while it is associated with most of the degenerative diseases such as diabetics, inflammatory bowel syndrome, rheumatoid arthritis, asthma, brain dysfunction like A.D.-P.D., etc.
There are many reasons to believe that a wide spectrum of diseases and ageing to be caused by free radical reactions, continuously generated in mitochondria and due to SOD decline or mutations.

Therefore one of the strongest research growing theories is the mitochondria DNA mutations and free radical chemistry as involvement in both normal essential biology and age-related disease and dysfunction.

Many degenerative diseases are implicated with high free radical activity and decrease of antioxidants – cancer suffers major oxidative stress and low expression or SOD mutation – Diabetics shows very low SOD and glutathion levels in most of the body’s organs – Roy Walford stressed that diabetics show a pattern of ageing in patients looking 15-20 years ahead of their chronological age.

Since neurons tissues contain high concentration of mitochondria and have an unusually high rate of oxphos (and large constant flux of oxygen) to support their large complement of ions pumps for electric impulse.

Neurons mitochondria inevitably produce high amount of ox-radicals which reactions can be a damage to the neurons.

From iridology standpoint, I made clear position to determinate the degeneration of the C.N.S that comes with psychological unbalance, poor bowel functions, stress, toxicomolecular practice etc.

Mitochondria DNA somatic mutations can be inherited (from the female to the new offspring) or can be acquired in tissue throughout life with different mutations potentially occurring in different cells or even different DNA molecules in a single cell.

Individuals inherited oxphos genotypes define the initial energetic capabilities and potential functioning of tissue and organs.

Therefore through iridology it is possible to define:
- constitutional strength - (IFD)
- autonomic nervous system - (ANS)
- central nervous system - (CNS)
- or any inherited organs or tissues weakness.

Iridology is an early warning system diagnostic, which may also profile biological ageing. Thus, I come to be able to evaluate from the past two decades a rapid degeneration process in human accompanied by a varieties of iris sign.

In my work I used several types of check up to evaluate some profile that could support my iridology observation and finding.

Anti-ageing tests include some new system such the measurement of the oxidative stress of damage provoked by free radicals. One of the main indicators is the MDA (oxidised polynsaturated fat) which can be tested from urine.

There is reason to believe from an embryological stanpoint that the colon, ANS and C.N.S. are connected and therefore are related with each other and even influence other organs – we know in iridology that the entire intestinal area and specific zones are by reflex influencing other organs.

In the iris chart every organ in the body is dependent for its nerve supply on the ANS – without good strong nerves, the body deteriorates and ages. The nervous system contains over 100 billions nerve cells or neurons which are specialised to transmit impulses from one part of the body or CNS to another. Each of those neurons have up to 25,000 possible interconnections with each other.

Since the iris is considered as a external projection of the brain with 28,000 nerve fibers connected with each cell of the iris, in permanent contact with the brain optic nerve containing 10,000 nervous ramifications, there is a reason to admit that brain neurons
transmit from an electric impulse of the ANC, any organic and chemical dysfunction to the structure of the iris. 

German medical research Walter Lang has demonstrated that autonomic nerve fibers from virtually every gland, organ and tissue of the body extend to the thalamus and hypothalamus which monitor and respond to changes in condition in all anatomical structures. 

As neurons ages they undergo a number of distinct intracellular changes – Since the cell membranes are made mostly of phospholipides which contain fatty acids they suffer oxidation process and become oxidised. 

One very characteristic alteration is the accumulation of lipofuscin, a dense, granular material composed mostly of oxidised lipids. 

As neurons ages they undergo a number of distinct intracellular changes – one very characteristic alteration is the accumulation of ageing pigment in nerve cells called “lipofuscin”. 

Therefore antioxidants are necessary to avoid or deactivate lipid peroxidation, also good quality food and integrity of the bowels is important as nerve fibres are supplied in nutrients by blood vessels and need to be free of toxins while electric impulse to send message is controlled by ions and redox which itself depends on certain types of foods and enzymes. 

In other recent studies, carried out by David and Suzanna Felton at the University of Rochester, the sympathetic nervous system has been found to innervate both primary (Thymus, bone narrow) and secondary (spleen, lymph node, Peyer’s patcher) lymphoid tissue. That explains also how poor nervous system can affect the immune response lead to poor resistance during some bacterial or viral disease and favouring disease and cancer. 

While the H.P.A. axis (Hypothalamus – Pituitary – adrenal) is quiet visible in the iris and underline psychiatric or neuro-psychologic disorders including C.F.S.. 

In human body, cells always repeat cell-division, except brain cells – starting 35 years of age, each individual lose about 100.000 neurons per day – while in each decade over 45 years we lost about 13% of dopamine producing neurons (Parkinson’s disease 80%). 

Some people who apparently look more or less healthy can suddenly, seemingly without reason, to start tiring quickly and then they start looking truly old. 

Many younger are almost in the same condition than adult, suffering from weak physical condition, poor nervous system, poor memory, lost of interest and other types of brain dysfunction. 

Strong build nervous system is important as mentioned before because neural energy is expressed through the ANS which is the extension of the brain. Thus good brain is vital in our life, but young persons already show ageing processes, inherited weakness, both physically and psychologically, very relevant in the iris. 

Under stress condition, mitochondria are increasing to produce more reacquired energy, which can be observed through the Vega 722DFM. At the same time SOD level should be high to cope oxi-radicals production from stress, tension, accumulation of superoxide in mitochondria cell’s decrease ATP production. 

However we have to face the situation when the body need extra energy to respond to some social events and stress but mitochondria are unable to increase ATP production. 

It will develop a nervous tension, inflammatory process as seen in the iris with extra nerve ring, and abnormal oxidation process, from medium to high activity.