LUMINEC HOLDINGS CORPORATE UPDATE 2024

Luminec Holdings Corporation, under the subsidiary of Luminec Pharmaceuticals, has an exclusive joint venture with Dra. Susana Alcázar-Leyva. "Dra. Susana," as she is known to her colleagues and patients, is the daughter of renowned researcher and academic Professor Heberto Alcázar-Montenegro, and is director of the Hans Selye Scientific Research Institute, founder of the Gerontology Centre Albert Szent-Györgyi in Mexico City, and founder of the Gerontology School Heberto Alcázar-Montenegro in Querétaro, México. Our collaboration with Dra. Alcázar-Leyva has developed proprietary formulations for both humans and animals – X-2, CRO-50, DNSM, N-N, NAD+, and RNA – natural epigenetic reprogramming formulations that thousands of case studies, documented in more than 50 peer-reviewed articles in national & international scientific and medical journals, have been proven to be more effective than other products in treating age-related diseases by repairing damaged cells and reversing the aging process.

These products can be used on their own or in conjunction with others; they do not contradict or conflict with other therapies and they do not cause side effects. They have been studied extensively at several national and international scientific institutes, including UNAM, UAM, IPN, CINVESTAV, ECQUC, ESAANUC, UAQ, INFER, IN Cardiology, ULSA, INN, CEMIFAR, INB, WR Grace & Co (Columbia, MD, USA), and HN (Bayreuth, Germany); the results of these studies have been published in myriad scientific journals and professional theses. Institutions and companies interested in using and producing these products have included the Foundation for Health and Eradication of Incurable Diseases at the Service Humanity, Chile (1973); Galepharma, Iberica (1973); and F. Hoffman-La Roche, AG (1974).

Luminec Pharmaceuticals has completed its initial submission and request for a meeting with the National Institute of Allergies and Infectious Diseases (NIAID) and with the Biomedical Advanced Research and Development Authority (BARDA) under the "Medical Countermeasures: Coronawatch" program.

"We believe the scientific research and peer-reviewed papers we have submitted, along with the past and current patient records, provide strong evidence of the efficacy of our combined therapy of CRO-50 (ribonuclease, enzyme stable in solution) and X-2 (thiamine pyrophosphate, coenzyme stable in solution) in addressing COVID-19, as well as RNA viruses such as influenza, respiratory syncytial virus (RSV), and coronavirus," said Luminec Pharmaceuticals Cofounder John Everding. "These viruses are small; replicate rapidly; render genes incapable of repairing themselves; and

mutate easily, giving rise to variations capable of causing pandemics. With the leadership of executive board member Dra. Susana Alcázar-Leyva, MD, PhD, Luminec Pharmaceuticals has successfully used these formulations for several decades to treat viral infections in both human and veterinary applications in numerous countries around the world."

Further, these proprietary formulations are classified by the U.S. Federal Drug Administration as GRAS (Generally Recognized as Safe) for a variety of conditions, on their own and in combination with Luminec's propriety formulations based on Steven Schutt's Free Amino Ion Theory, Triamino and TAFA400 (Triamino enhanced by the addition of a unique formulation of fulvic acid developed by Steven Schutt and John Everding).

Both Triamino and TAFA400 have been further enhanced by a powerful delivery mechanism known as PH-713, developed by Dr. Steven Kushner. This proprietary delivery system is like an exosome, but has better absorption and can deliver particles of any size, unlike most exosomes. More importantly, PH-713 has a direct physiologic effect on the surrounding tissue, which enhances bioavailability and the retention of compounds, whether water- or oil-based, whether administered *in vitro*, *in vivo*, via inhalation (with capsulation capacity of 250-500 mg), orally, topically, inter- or intra-arterially, or inter- or intravenously. "We are honored to offer our research and records to help mitigate current and potential future viral pandemics," stated Luminec Chief Science Officer Stephen Holt, MD, DSc, PhD.

More than thirty-seven years in development, the Triamino formula is a unique and revolutionary amino ion-releasing hydrogen-bonded molecule that cannot be copied or re-engineered. This new molecule is a water-soluble blend of amino acids embodying natural agents that facilitate healing across a broad spectrum of medical ailments and health conditions. The molecule does so because the ionic force of the free amino ions in a hydrous solution inundates and bonds the unstable proteins (denaturized proteins that lose their 3D structure) in dysfunctional cells; the protein-folding agents align and become stable, according to their native structure dictated from the coding of their DNA. The same occurs with the nucleic acids (RNA and DNA). They suffer denaturation, losing their conformation (folded); but that they can be returned to their original structure using the Triamino formula. Thus, the functioning of a molecule depends on its structure; a molecule might interact with others, recovering cellular homeostasis.

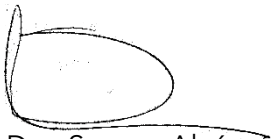
Triamino has been evaluated and verified through a series of sophisticated trials using nuclear magnetic resonance (NMR). In 2011, the Imperial College of London substantiated Mr. Schutt's research and analysis of protein behavior as outlined in his Free Amino Ion Theory. In addition, an internationally recognized bioresearch laboratory has conducted a series of median lethal dose (LD50) studies consisting of inoculation by subcutaneous infusion, intravenous injection, inhalation, and oral administration. Every single test verifies that this new molecule is non-toxic with no side effects; it is as safe as distilled water.

Triamino Fulvate (branded as TAFA400) is a second, newer molecule, developed by Messrs. Schutt and Everding. This unique formula combines the Triamino molecule with carbohydrate-derived (CHD) fulvic acid (which eliminates the problems encountered with mineral-derived fulvic acid). CHD fulvic acid, in a chemically pure pharmaceutical grade, enhances the Triamino molecule to produce the most effective non-toxic, all-natural, broad-spectrum, anti-fungal, anti-bacterial, anti-microbial, and anti-viral agent known to humankind. This new formulation more easily bonds to the nucleic acid within the cellular protein and causes the nucleus to function as originally programmed by its DNA because fulvates strongly bond to all proteins.

In sum, the formulations of Luminec (USA) and the Philosophical and Scientific Research Laboratory (Mexico) are revolutionizing how we treat major diseases, with an unprecedented humanitarian and economic approach.

Luminec Pharmaceuticals is a world leader in health care with its wide range of effective, safe, and scientifically proven products. Our products respect *homeostasis* – a word coined by Walter Cannon (1871-1945) referring to internal, structural, and functional constancy, which gives stability to cells and countless physiological processes. Simply put, our products restore health and promote longevity in both humans and animals.

John Everding
Co-Founder, Luminec Holdings, Inc. and the Luminec Group of Companies
C0-Founder, National Veterans Rights Association
Co-Founder/Director, Mediaseam Productions
Founder, Legendary Equine Performance



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APPENDIX A

(*Triamino, TAFA400, X-2, DNSM, CR-50, N-N, and RNA are registered trademarks of Luminec Holdings and/or Dra. Susana Alcázar-Leyva)*

TREATMENT FOR FACIOSCAPULOHUMERAL MUSCULAR DYSTROPHY (FSHD)

By Dra. Susana Alcázar-Leyva

Introduction

We know that genes are the minimal molecular unit of genetic information contained in the DNA (at a locus or site) of the cell nucleus, independent of the mitochondrial DNA.

A gene is a short segment of DNA found within the chromosome. It is always in the same place and in paired pairs (known as alleles), that is, for each specific gene there is another allele, a copy.

Each gene transmits information to the offspring of the organism and is thus responsible for inheritance, which depends on the regulating genes in combination with enzymes and other proteins during synthesis. The information contained in the genes can determine and transmit the physical traits of people, but also congenital diseases.

On the other hand, structural genes contain the instructions to manufacture or encode proteins, therefore, a mutation in a gene alters this activity, preventing the synthesis of the specific protein, resulting in a genetic disease.

Mitochondrial DNA can also undergo inherited, spontaneous or acquired mutations that cause mitochondrial diseases, such as those related to muscle and nerve cells like inflammatory myopathies, like dystrophies (facioscapulohumeral dystrophy) and metabolic, endocrine and drug-induced myopathies.

Muscular dystrophies are caused by genetic defects that cause muscle weakness and loss of mobility over time. Genetic alteration is related to proteins that strengthen and protect muscles, whose enzymes are compromised such as aldolase, creatine phosphokinase, lactate dehydrogenase and myoglobin.

Supportive Treatment Proposal

The combination of genetic and epigenetic factors such as loss of homeostasis of energy metabolism can lead to various pathologies.

We know that cell deterioration starts in the mitochondria due to the formation of free radicals and reactive oxygen species. When free radicals exceed a certain threshold, cell deterioration begins. It is

precisely in the mitochondria where PPT (thiamine pyrophosphate or cocarboxylase) acts, participating in energy metabolism, which is why it has been used as monotherapy or as an adjuvant treatment to improve the quality of life. As in all diseases, applying this therapy promptly, that is, at the onset of symptoms, tissue atrophy can be avoided.

Dystrophies (mutation of the gene coding for dystrophin) are normally treated with glucocorticoids because of the inflammatory component, but by using an anti-inflammatory enzyme (deoxyribonuclease, stable in solution), we would avoid the side effects of steroids.

In the energy metabolism that takes place in the mitochondria of the muscles, two types of coenzymes are used: cocarboxylase or thiamine pyrophosphate (PPT) stable in solution and nicotinamide adenine dinucleotide (NAD+) stable in solution, coenzymes that participate directly in energy metabolism. This to improve the physiology of the respiratory, cardiovascular and musculoskeletal systems, whose fibers (muscle or cytoskeletal proteins) are losing their structural and functional stability (sarcomere disorganization), leading to progressive muscle weakness and destruction.

Muscle is the main biochemical transducer that converts potential (chemical) energy into kinetic (mechanical) energy.

Both type 1 fibers of the red muscle, whose contraction is slow and sustained, and type 2 fibers of the white muscle, whose contraction is fast, require ATPase activity, i.e., oxidative, glycolytic and glycogenic activity.

Group 1 fibers are rich in mitochondria, with oxidative activity. Group 2 fibers with normal number of mitochondria have phosphorylase and glycolytic activity.

Contraction and relaxation are processes that require ATP, Ca++ and Mg++, for the proper functioning of actin and myosin. When oxygen is deficient due to mitochondrial failure, free radicals and oxidative stress are produced. This is the cause of myoglobin becoming metmyoglobin, i.e., myoglobin is oxidized (oxidation = loss of electrons) and this is converted into oxidized porphyrins, characteristic pigments of aged muscle.

Therefore, when respiratory activity and ATP production in mitochondria fail, oxidative stress increases, damaging proteins, lipids and DNA in cells, a mechanism that leads to disease, aging and cancer.

PPT and NAD+ coenzymes improve mitochondrial respiratory and energetic function in vitro, in vivo, and clinically, so their timely or preventive application is essential.

APPENDIX B

STIFF-PERSON SYNDROME (SPS)

By Dra. Susana Alcázar-Leyva

X-2 (PPT) should help with Stiff-Person Syndrome, both intramuscularly and intravenously, to reactivate energy, since both the contraction and relaxation of the muscle fibers require the ATPase (enzyme), therefore of energy (ATP), because in this process the Ca++ molecules enter (contraction) and leave (relaxation) of the muscle cells as long as there is ATP. The membrane is polarized when Ca++ enters and depolarizes when Ca++ is released, this also requires energy (ATP). Of course, this involves actin, myosin, troponin, tropomyosin, and other contractile protein molecules that carry out movement, and movement is life. (*Ollin yolizti* means "life and movement" in Nahuatl.)

The decrease in neuromuscular synaptic transmission can fail, that is, muscle action potentials fail, acetylcholine receptors and muscle contraction fail, and weakness occurs. Of course, in this neuromuscular communication (neuromuscular plate) as well as in the communication between neuron and neuron, there is an electrochemical component, that is, the communication is both at an electrical and chemical level through neurotransmitters and the electrical impulse (change of charges within and outside neuronal membranes). "Without music, life would be a mistake," Nietzsche would say.

Pituitary implantation would also help because the anterior lobe of the pituitary is related to muscle and bone metabolism.

There are several diseases related to the alteration of the DNA of the mitochondria that affect the muscles and nerves, as we discussed in the text for Luminec.

It is also believed that there is an autoimmune component in this syndrome, if so, then there is an inflammatory component, for which nucleases (RNase and DNase) could help.

If a patient is treated in time when the first symptoms begin, we avoid cell death and tissue atrophy, resulting in a longer and better quality of life.

Other treatments that may be offered to this type of patient should be taken with caution, as they will generally be more harmful than beneficial.