Eyes on Light and Water!

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I am grateful to be a part of the College of Syntonic Optometry (CSO) and to have recently attended their annual conference in Nashville, TN. After waiting 2 years, I was grateful for the opportunity to take the third part of the fellowship process, an oral interview, and complete my fellowship requirements for this esteemed organization.

Why is CSO such a great organization? This group of optometrists has been at the forefront of the benefits of light on vision and health for nearly 100 years. Founded in 1933 by Harry Riley Spitler, PhD, OD, the organization’s conferences cross disciplines and engage scientists, practitioners and therapists in such varied fields as quantum physics, energy medicine, physical therapy, osteopathy, as well as the top thinkers and practitioners in the fields of both optometry and ophthalmology. In the past few years, more optometrists have begun to look at the field of phototherapy and have shown greater interest in syntonic optometry, particularly with recent research on the benefits of light in the traumatic brain injury population. This year, the preconference 101 course had a record number of attendees, many of whom stayed for the main conference.

One of the highlights of this year’s conference was listening to James Oschman, PhD, author of Energy Medicine: The Scientific Basis. He discussed the living matrix and how it was alive with mobile electrons and protons and capable of vibrating in a dynamic manner with complex harmonics. He discussed his introduction to energy medicine beginning with the work of Albert Szent-Gyorgyi, MD, PhD who identified collagen as a semi-conductor, and Mark Bretscher, who noted that glycoproteins spanned the cell membrane and these integrins connected the living cellular matrix with the extra-cellular matrix and all connective tissue. He talked about Kiko Matsumoto and Stephen Birch, who defined a fascial system connecting membranes of cells, and the importance of Jean-Claude Guimberteau and Colin Armstrong’s book Architecture of Human Living Fascia, which defines acupuncture meridians as primary channels through the living matrix with the capacity of high speed communication and the ability to reach every part of the organization. He mentioned another book, Fascia by Robert Schleip, Carla Stecco, Mark Driscoll and Peter Huijing that further discusses the importance of the fascia for connecting all systems in the body. Oschman quoted Stuart Hameroff who stated that neurons have “enormous capacity for intracellular information processing” and talked about Alfred Pischinger’s The Extracellular Matrix with Ground Regulation which notes that the fascia is the only system in the body that touches all other systems and is the basis for holistic biological medicine. Dr. Oschman cited Finando and Finando’s work and noted that “every function and every process of the living body involves the matrix in one way or the other”. Jim Oschman was able to publish posthumously the work of his friend Joie P. Jones who correlated brain cortices to acupoints.

Another area of discussion was the function of the heart. He cited research that it is not valves that are involved in pumping the blood up the body; it is light. Furthermore, he talked about the fact that James Clerk Maxwell and Michael Faraday had 20 equations describing the electromagnetic field that can explain and advance the field of medicine, and the fact that all but a few that had been forgotten for more than a century. At the same time, electromagnetic pollution, including wireless, 3G, 4G and 5G (see The Body Electric by Robert Becker) leads to much disease in the world. Some ailments include stomachaches and headaches, muscle pains, poor sleep, tinnitus, hyperacusis, dizziness, fibromyalgia, cognitive dysfunction, memory loss, attention deficiency, emotional lability and cancers. Tuning in to Nature by Philip S. Callahan and Electromagnetic Man: Health and Hazard in the Electrical Environment by Cyril W. Smith and Simon Best discuss the dysregulation caused by electromagnetic fields (EMF). Oschman cites Jon Lieff and Fritz-Albert Popp as leaders in the field of cell communication and how the fact that all cells talk to each other can aid in healing. The process of amplification is identified by Nobel Prize winner Alfred G. Gilman where a single biophoton can trigger a cascade of intracellular signals that initiate, accelerate or inhibit biological processes. Dr. William J. Rea described the “coherence phenomenon” and how it can be used to treat EMF sensitivities. Dr. Oschman suggested taking measures to limit EMF exposure using blocking devices and shutting off EMF emitting devices during sleep as well as possible light therapy. Another researcher in the field of biophotonics and EMF disruption includes Vladimir Ginzburg’s 5 books on the spiral grain of the universe.

Another highlight was listening to Joseph Shapiro, OD discuss his compelling history of treating his patients with both light filters and alternating light via translid presentation with the eyes closed using the TBI unit. His engaging stories demonstrated the power of light to change behavior, emotions, sleep patterns and the grip our past has had on us.

Another therapist, Michal Nieidzielski, PT, PRC shared about cranial patterns and the impact of the asymmetry of human physiology on our bodies. He discussed the trigeminal nerve and the cranial bones, specifically the occiput, sphenoid, temporal bone and mandible, and how all are interrelated. Michal talked about how spatial perception is a good indicator of how structure affects function.

We were honored to have Gerald Pollack, PhD, author of Cells, Gels and the Engines of Life and the popular The Fourth Phase of Water, as well as founder of The Institute for Venture Science, www.ivscience.org. Dr. Pollack shared with us his discoveries on EZ water, the fourth phase of water. EZ water is water that creates an exclusion zone and has properties different from water’s liquid, solid and vapor forms. This fourth, gel-like phase is more constrained, more stable and more structurally organized with different optical properties. This water can store information and mobilize the red blood cells in the body, driving blood flow, and activate proteins in the cells. It is created when water is exposed to light. Of course, we know the importance of light for well-being, and his work gives strong support for a mechanism conferring good vision and health. Dr. Pollack discussed the importance of drinking water, green juicing, turmeric, coconut water, holy basil, ghee, sunshine, infrared saunas and grounding as 6 “EZ” expedients for promoting health. He was excited about the broad implications of applying radiant energy to water on biological consequences, vision, chemistry, weather, food, health, filtration, desalination and electricity.

We also heard about myopia and the effects of light on nearsightedness as well as myopia control from Brenda Montecalvo, OD. We learned techniques from Sarah Cobb, therapist and contributor to the Journal of Syntonic Optometry, to improve acuity and Brenda shared very recent research using low level red light therapy to decrease myopic progression and the importance of outdoor lighting exposure. Specifically, she discussed the OPN5 photoreceptors’ interaction with violet light and its protective effect on myopic progression by suppressing axial length elongation. She also discussed cases that were improved with application of syntonic filters as well as the importance of eye movement work stretching the eyes in all positions and shifting one’s gaze near, intermediate and far.

Finally, Cathy Stern, OD, FCOVD, FNORA, FCSO, Larry Wallace, OD, FCSO, and Ray Gottlieb, OD, FCSO, long standing leaders and board members of CSO, spoke about the latest breakthroughs in the fields of light and photobiomodulation from forward thinking researchers in the fields of medicine, physics, neurology, quantum dynamics and biophysics.

Cathy’s talk focused on research on circadian rhythms and melatonin, discussing the importance of melatonin for stimulating the synthesis of antioxidant enzymes, inhibiting radical generating enzymes and protecting the nuclear DNA from oxidative damage. She mentioned research indicating the use of melatonin in people with Alzheimer’s disease to improve sleep, stop sundowning and slow cognitive impairment. She spoke about the importance of circadian rhythms for metabolism, mental health, combating dementia, DNA repair in cancer and improving the effectiveness of anti-cancer drugs. Sleep disruption and irregular sleep cause a myriad of problems and Cathy recommended the following for maintaining healthy circadian rhythms: two hours of sunlight in the morning, daily exercise, avoiding caffeine after noon, limiting light before bed or using yellow, red, orange or amber light at bedside with an otherwise darkened bedroom (blue light recommended in the morning only) and keeping a consistent sleep schedule.

Larry Wallace discussed the voluminous information on photobiomodulation or PBM in current literature. He discussed the therapeutic effects of photobiomodulation for tissue healing, reducing pain, swelling and inflammation, regenerating nerve and stem cells, protecting tissues from poisons and ameliorating symptoms of traumatic brain injury, ischemia and central nervous diseases like Parkinson’s and Alzheimer’s. When applied correctly, there was no damage reported in the literature.

He also talked about William Garner Sutherland’s work on cerebral spinal fluid (CSF) as the primary respiratory mechanism or “breath of life” and its importance for providing mobility between the brain and spinal column. The integrity of the CSF is important for cardiovascular, respiratory and vasomotor influences as well as pH, lymphatics, nerve tone and cerebral blood flow. Syntonic phototherapy as well as audio-visual entrainment provide a way to balance the nervous system, tone the vagus nerve and provide energy for cellular regeneration and restoration.

Larry shared that there are 50 known photoreceptor molecules in water, hemoglobin and melatonin that respond to light stimulation. Photoreceptors and key enzymes such as cytochrome oxidase and photoactive porphyrins and nitric oxide are involved in increasing ATP, regulating vascular dilation, increasing proliferation of cytokines and inflammatory mediators, increasing tissue oxygenation and increasing cell metabolism. Some of the ocular effects and conditions positively responsive to PBM include the restoration of ganglion cells in glaucoma, optic nerve atrophy and disorders including retinopathy of prematurity, myopia reversal, acuity improvements in amblyopia, paretic extraocular muscles and binocular dysfunctions, macular degeneration and corneal diseases such as dry eye and herpes.

Some of the instruments that optometrists can use in addition to syntonic instruments and filters include the new VieLight which applies red and infrared light with various frequencies and the CoMRA multi radiance laser pulsed at 5, 50, 1000 Hz of an infrared laser of 905 nm plus circular presentation of red-yellow, violet/blue-green LED’s in clockwise rotation plus pulsed magnetic fields and ultrasound. The Photon Stimulator applies light on acupuncture points to improve acuity in macular degeneration. All of the above can be used at home for daily use.

Larry also spoke about his in-publication book, Reflection on Light and Vision. His book’s conclusions included the concept that a holistic approach to vision and vision therapy is required as we are multidimensional beings. He discussed that treatments are linked via network physiology and electromagnetic energies connecting different systems and that we are constantly reorganizing and reconstituting. Thus, a systems network approach to healthcare is essential to treatment. Furthermore, all disorders are related to a loss of rhythm and tone as all in life is vibrational and we are looking to restore resonance to the system. Biophysics underlies all biochemistry and the photonic and electromagnetic communications within the liquid crystal matrix in the body are pervasive. As the eye is a fluid organ and the CSF and cerebral blood flow are all interrelated to water and light, water and light are the foundation of all healing and are essential to our consciousness.

Larry additionally reviewed a few other books on light and beyond. Electromagnetism and the Sacred by Lawrence Fag reviews the work of James Clerk Maxwell. Einstein has said that Maxwell’s discovery that electricity and magnetism are a single force at the speed of light was the greatest discovery. This book states that electromagnetic interactions drive all of life. Quantum Electro Dynamics (QED) is the field of study of how photons interact with matter and electromagnetic particles and can explain a possible fourth field, the memory or Akashic information field driving all that is occurring.

The Theory of Multidimensional Reality by Douglas Voft further defines the universe as driven by information in 10 dimensions of reality. Scalar and torsion fields are what link the world together. These fields are moving a billion times faster than the speed of light, coming faster and with more information than we can imagine. Interference patterns record more information on the assembly of the particles in the vacuum of the universe, and as Plato has said, “light is the volume that holds the universe together”.

The last book reviewed was The Field by Lynne McTaggart. Her book discusses the Zero Point Field, the resonance of the universe. Water is the medium of energy and carries information with memory, coherence and super radiance. Vacuum Physics is the potentiality from which matter and fields arise and can explain our existence.

The conference talks ended with Ray Gottlieb, https://raygottlieb.com/, who spoke about some of the history of syntonics and told inspiring stories of his patients whose lives were miraculously improved by working with green light and vision therapy, including trampoline activities. He also shared about the prevalence of red blood cells in the body, which carry oxygen to the cells, and the fact that they respond best to green light. His talk concluded with stories about his studies and unique experiences with people in various fields in the world of vision, light and color. His focuses have been on exploring the importance of light and color in healing as well as preserving the work of Dr. Robert Pepper and his trampoline and stress point learning techniques, presbyopia control and the Bates Method.

Both Dr. Wallace and Gottlieb are recognized internationally for their work on light and vision and their contributions have led the way for those of us who are committed to learning and growing so as best to provide innovative and progressive care to our patients. They want to share their knowledge and expertise and those attending a CSO conference can feel their zeal and desire to share their knowledge, as well as all of those engaged in the field of light and vision.

The conference ended with a song and a dance as well as heartfelt engagement at our evening banquet keynote and awards ceremony. We had quite a treat hearing the story of Ming Wang, MD, PhD’s hardships and triumphs from his harsh early years in Communist China and penniless emigration to the United States to his attendance at Harvard and MIT and subsequent achievements in the fields of laser eye surgery and patents for embryonic corneal tissue. His plea for unity in the face of division and his faith in the capacity to overcome adversity were heartwarming. The live entertainment with his Erhu, a Chinese violin, accompanied by Carlos Gonzalez, solo guitarist, was a high note.

Of course, I was honored to be a part of the awards presentation with the Spitler award going to Danielle Bianco, OD, FCSO, and receiving my fellowship award along with Steve Curtis, OD, FCOVD, FCSO. I greatly look forward to next year in South D