



CLINICAL APPLICATIONS OF SENSORA

The Sensora is a multi-sensorial system generating an immersive environment with deeply integrative therapeutic potential. It can be used as a psychotherapy support in the treatment of numerous mind-body ailments including:

- Post-Traumatic Stress Disorder (PTSD)
- Depression and burnout, chronic fatigue
- Insomnia
- Addiction
- Recovery, re-education, ergo therapy
- Attention Deficit Hyperactivity Disorder (ADHD)
- Anxiety, distress, mental tension
- Chronic pain, fibromyalgia
- Palliative care
- Labyrinthitis, Tinnitus

Sensora integrates 3 types of sensorial stimuli: visual, auditive and kinesthetic. Its active principle is based on a new light-control technology called "Light Modulation", allowing the embedding within light projections of pulsations capable of interacting with various psychophysiological rhythms, such as brainwaves, breath or the heartbeat.

Light Modulation is a refined form of Audio-Visual Entrainment (AVE), a technique which has been validated by a substantial number of clinical studies. See for example studies conducted on various AVE applications by Canadian researcher Dave Siever (*references below*).

Sensora uses a unique light projection system capable of generating light and color patterns more complex than those of most traditional AVE instruments. This enables the implementation of sophisticated light therapy modalities, such as those based on Lateral Light Therapy. This technique was originally developed by Russian psychiatrist Dr. A.P. Chuprikov, and is still relatively unknown in the West. It exploits brain laterality to influence, through the visual system, pathologies as diverse as depression, hypertension and rheumatoid arthritis, and has been tested in clinical studies conducted in Russia and Ukraine (*see e.g. references below*). Because of its multi-zone light projection control, the Sensora is ideally suited to create powerful lateralized light patterns.

In addition to these processes, the Sensora multi-sensorial environment introduces another key element considered by many researchers to be vital for therapeutic success: pleasure. The carefully calibrated Sensora output generates a pure sensorial enchantment, contributing to restoring the flow of catecholaminergic neurotransmitters characteristic of pleasure, such as noradrenalin and dopamine, as well as that of endorphins. This type of sensorial stimulus focused on pleasure can play a crucial role in re-establishing homeostasis in the body and the biochemical balance necessary for mental health.

This view has been corroborated in a recent clinical study on the effects of colored light projections based on Light Modulation technology as used in the Sensora system, published in 2013 by Dr. M.J. Ross, Dr. P. Guthrie (*Midwestern State University, Texas, USA*) and J.C. Dumont (*Trinity Western University, BC, Canada*) in *Advances in Mind-Body Medicine Journal*, Vo.27, No.4. A total of 117 subjects participated in two locations (40 in Texas, USA and 77 in Québec, Canada). The study protocol involved both physiological (Heart Rhythm, Heart Rate Variability, Skin Conductance) and psychological (POMS Profile of Mood States, subjective mood evaluation) measurements. It concluded that light modulation sessions are significantly correlated with higher well-being and coherence, as well as reduced mood disturbance. They were shown to have a dual effect, simultaneously achieving both deeper relaxation and enhanced alertness. This distinctive combination of awareness and relaxation was induced by the light modulation without any conscious effort from the subjects. Known to be linked to peak performance, it has similarities with the meditation state and holds great potential for therapeutic integration.

Sensora has been used for the past few years by a number of therapists in Europe, America, Australia and South Africa, who have successfully integrated it within their respective practice. A growing number of case studies are now available, showing remarkable results of the application of light and multi-sensorial stimulation. Sensora is available in two versions: Sensora-Pro I for full-scale installations, and Sensora-Pro II for smaller rooms. These two systems share a range of software control applications and of pre-programmed multi-sensorial sessions.

Please contact us at info@sensora.com for any further information regarding research on the therapeutic applications of Sensora.

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Clinical Studies References:

Sensora Light Modulation:

M.J. Ross, P. Guthrie, J.C. Dumont, "The Impact of Modulated Color Light on the Autonomic Nervous System"
Advances in Mind-Body Medicine, Fall 2013 27(4):7-16

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Neurobiology of Affective Disorders

Treatment of Seasonal Affective Disorder

Treatment for Post-Traumatic Stress Disorder

AVE for Attention and Learning

E.Pigott et al, "Frequency-Based Light & Sound Neurotherapy (LSN): A Review of the Research"

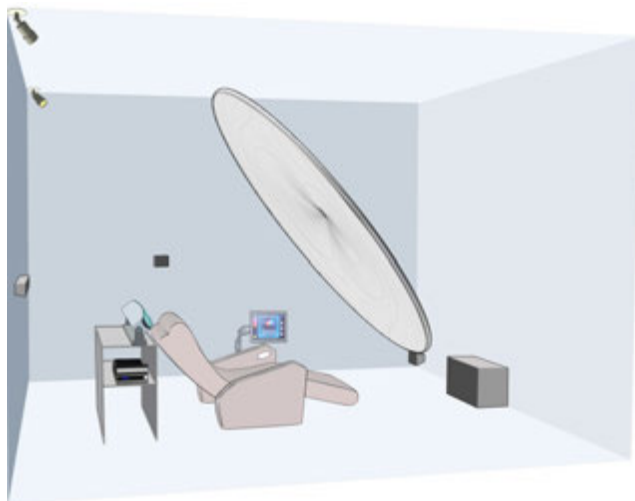
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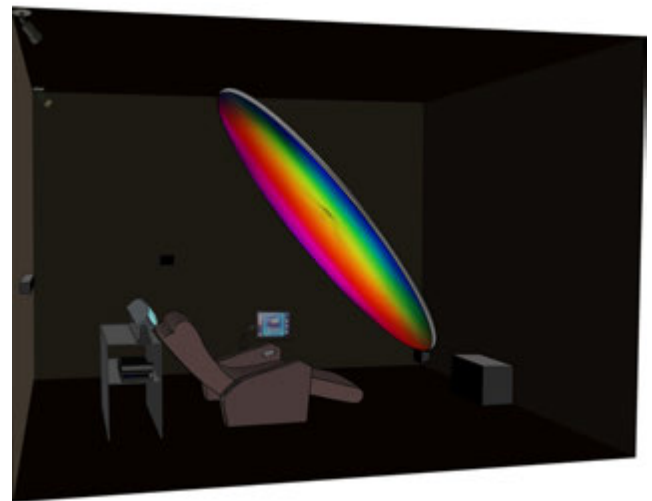
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I.A. Palienko, "Hemodynamic effects of lateralized colored-light stimulation of the brain hemispheres in patients with essential hypertension" (in Russian), Ukr. Kardiolog. Zh., Nos. 5/6 (Issue II), 46-48 (2000)

I.A. Palienko, "Modifications of the EEG Activity upon Lateralized Stimulation of the Visual Inputs to the Right and to the Left Brain Hemispheres by Light with Different Wavelengths", Neurophysiology, Vol. 33, N°3 (2001)



Sensora Room installation



Sensora Room (during session)