

## Frost & Sullivan Award for Technology Innovation of the Year



### AWARD DESCRIPTION

Frost & Sullivan's Technology Innovation of the Year Award is bestowed upon a company (or individual) that has carried out new research, which has resulted in innovation(s) that have or are expected to bring significant contributions to the industry in terms of adoption, change, and competitive posture. This award recognizes the quality and depth of a company's research and development program as well as the vision and risk-taking that enabled it to undertake such an endeavor.

### RESEARCH METHODOLOGIES

To choose the award recipient, Frost & Sullivan's analyst team tracks innovation in key hi-tech markets. The selection process includes primary participant interviews and extensive primary and secondary research via the bottom-up approach. The analyst team shortlists candidates on the basis of a set of qualitative and quantitative measurements. The analyst also considers the pace of research and technology innovation and the significance or potential relevance of the innovation to the overall industry. The ultimate award recipient is chosen after a thorough evaluation of this research.

### MEASUREMENT CRITERIA

In addition of the methodology described above, there are specific criteria used to determine the final rankings. The recipient of this award has excelled based on one or more of the following criteria:

- Significance of the innovation(s) in the industry, and across industries (if applicable)
- Potential of the products of innovation(s) to become industry standard(s)
- Competitive advantage of innovation vis-a-vis other related ones- Impact (or potential impact) of innovation(s) on company or industry mindshare and/or company bottom line- Breadth of intellectual property related to the innovation(s), i.e. patents, scientific publications, papers in peer reviewed journals.

### AWARD RECIPIENT:

## HELICOR, INC.

Frost & Sullivan's 2006 Technology Innovation of the Year Award in the field of stress reduction and management technologies goes to Helicor, Inc. for its development of the breakthrough 'StressEraser' device technology. This handheld relaxation-training device is able to provide effective relief from chronic stress. Intended for use by licensed psychological and psychiatric health care professionals, such a device helps calm the mind and relax the body during times of intense stress, as experienced during difficult life events.

The StressEraser can alleviate mental and emotional stress in addition to physiological stress. The physiological relaxation objective is a sustained physiological state of parasympathetic dominance while the mental relaxation objective is a sustained focused inward attention or present moment awareness, devoid of mental distraction. The emotional objective is a steady state of minimal limbic system activity, characterized by the absence of acute limbic enervation of the autonomic nervous system.

The StressEraser measures the influence of the vagus nerve (the primary nerve of the parasympathetic nerves) on heart rate. The vagus nerve extends from the brainstem to many organs, including the heart. The vagus nerve has two primary inputs into it: respiration (via respiratory sinus arrhythmia) and the limbic area of the brain (the emotional processing center of the brain). The StressEraser uses a proprietary implementation of the CHP (Consecutive Heart Period) measurement of vagal activity.

Several peer reviewed clinical studies indicate that CHP measurement (computed from the beat-to-beat heart rate) has a linear correlation with the level of vagal activity. Therefore the StressEraser uses 'wave by wave' CHP measurement to observe the activity of the vagus nerve in real-time. Each time a person has an emotionally charged thought, there is a temporary inhibition of parasympathetic outflow. In other words, every time a person has painful or emotional thought, there will be a temporary inhibition of the vagus nerve. This causes the real-time CHP measure to drop to near zero. By monitoring real-time CHP, the StressEraser can detect when that happens and respond appropriately.

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# STRESSERASER

Helicor is currently completing contractual arrangements with the American Psychological Association Practice Organization to conduct the first clinical studies that compare the relaxation training efficacy of the StressEraser to standardized relaxation training methods for individuals diagnosed with generalized anxiety disorder (GAD). In other words, the study will examine whether individuals afflicted with GAD can successfully use the StressEraser to achieve a state of deep relaxation.

The company is working on expanding the capabilities of the StressEraser product to successfully treat a specific list of stress related conditions. Further, Helicor has filed multiple patents dealing with the internal technology such as determining sustained parasympathetic outflow from heart rate variability data, the external form factor, screen display and the organized presentation of data.

Frost & Sullivan's Award for Technology Innovation of the Year thus recognizes Helicor, Inc. for its development of a novel stress relieving device technology that could help in the simultaneously attainment of physiological, mental and emotional relaxation. Such a transcendental mind-body device is also indicative of a trend where customers' could demand non-pharmalogical solutions for their chronic conditions.



(Left to Right) Adam Forbes, Helicor, CEO, receives the Frost & Sullivan 2006 Technology Innovation of the Year Award from Stephen Mohan, Frost & Sullivan Vice President, Business Development. Helicor received their award at the 2006 Medical Devices & Healthcare Awards Banquet, March 15, in San Francisco.

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