

## **LIFEWAVE® IN-PROGRESS STUDIES**

*As of March 10, 2011*

### **Energy Enhancer®**

#### **Double-blind, placebo controlled study to determine the efficacy of the LifeWave Energy Patch in improving fitness, strength, endurance and balance in 30 healthy humans.**

The assessments will include stretch and reach, lat pull downs, hand strength and various measures of performance on a stationary ergometer bicycle. The tests chosen for this study were based on results from a pilot study. They were chosen for the results they presented and to be conducted in a short enough time to insure proper compliance and performance from subjects.

**Effects of Lifewave Energy Patches on Acupuncture Meridians & Biophoton Emission in Human Subjects** This expanded study is based on the findings of an earlier pilot study conducted in 2009. The statistical analyses of “before-after” changes indicated that the Energy Enhancer Patches, when applied at KI-1 points, influence the body’s energetic conditions including the following observations:

- Reduction of bio-photon emission implying enhanced coherence of cell activities
- Bio-energy shift to lower half of the body
- Enhancement of immune system activity

In order to re-confirm these observations under scientifically more vigorous conditions a “genuine vs placebo” double-blind test is proposed with 30 trials in 15 subjects as requested by Lifewave earlier this year. The subjects will be tested in a double-blind manner in a cross-over study.

**Doppler Laser Perfusion Imaging and Saliva Testing on the Energy Enhancer Patches** 20 healthy subjects are being recruited to participate in this double-blind, placebo controlled study. Using the Periscan Imager to look at micro vascular perfusion pre and post application of the Life Wave Energy Enhancer patches. The Periscan Imager uses a low energy laser beam (wavelength 670nm, max. output 1mW, beam diameter 1mm) that interacts with red blood cells flowing through cutaneous blood vessels resulting in a frequency change of the laser beam that is dependent on the red cell velocity. The measurement is passive and there are no known risks to this measurement process. An image of the fingers is produced showing color-coded areas of low to high blood flow.

All subjects will also undergo saliva testing with the following panels: Cortisol, DHEA-sulfate, Estradiol, Progesterone, Testosterone, Salivary Chloride, Salivary Potassium, Salivary Sodium. The questionnaires will include Tellegen Absorption Scale, Global Mood Scale, Hassels and Uplift Scale, Arizona Integrative Outcomes Scale Visual Analogue self assessment for energy.

## **IceWave®**

**Infrared Thermal Imaging in Determining Effectiveness of IceWave Patches** This open-label, 100-person placebo-controlled clinical study of the IceWave pain patches has two main goals: To determine the effectiveness of pain control of the IceWave patches compared to placebo after 48 hours and to evaluate the clinical effect of the patches on mental acuity, bowel function and daily activities, as reported on a 10-point Likert scale. Infrared images will be taken prior to patch placement as a secondary method for validating the Likert Scale assessment.

**Subjective randomized, two center, placebo-controlled study to test efficacy of non-transdermal pain patch** A two-center, 200 person pain study is in progress with subjects experiencing arthritic pain. Subjects at each site will be divided into two treatment groups receiving either the placebo or active pain patch. Over a seven-day period subjects will be recording their pain intensity in a pain diary which includes a pain scale and evaluating pain levels before and after patch application. Conclusions will be drawn on the effectiveness of the pain patches when compared to placebo in treating the symptoms of pain.

**Open-label Pain Study Comparing the Effects of the IceWave Pain Patches to the Regular Treatment of Various Pain Medications** A 40-person, single-center pain study focused on elderly subjects on a regular regimen of pain medication. This study will divide subjects into two treatment groups: one where the subjects will use only the IceWave patches to treat their pain symptoms and the second where subjects will continue on their pain medications. Both groups of subjects will cross-over into the other group after a 5-day period and be continuously evaluated using a mixture of infrared imaging to diagnose the source of pain; pain scales to quantify the level of pain experienced at intervals; and functional scale to evaluate the impact of the pain on routine daily activities. The study will be open-label and no placebos will be used. Comparisons will be drawn at the end of the treatment periods to evaluate the effects and effectiveness of both treatments on treating the symptoms of pain.

**Pilot Study on Chronic Pain and the Body's Biochemical Response.** A 10-person pilot study is in progress at an Italian center for health and well-being. The study will focus on subjects exhibiting chronic pain and their biochemical response, as measured by the BioExplorer. The Bioexplorer method has been devised to provide an instrumental, non-invasive assessment of active biochemical processes occurring both in the cerebrospinal areas and in the inner organs of the human body. This will be combined with regular self-assessments on pain intervals.

**Open-label Study to Determine the Effects of the IceWave Pain Patches on Controlling Pain** A 40-person, two-center pain study focused on subjects experiencing pain. Subjects will use only the IceWave patches to treat their pain symptoms for a 5-day period and be monitored daily to assess their impact on managing the pain and for any adverse events. The study will be

open-label and no placebos will be used. Comparisons between baseline pain levels and 5 day pain levels will be accessed using a Visual Analogue Scale for pain.

### **Silent Nights®**

**Double-blind, placebo controlled study to measure subjective and objective effects of Silent Nights patch on sleep quality.** A double-blind placebo controlled study to determine the Silent Nights patch on individuals with varying degrees of sleep difficulties. Subjects will be evaluated using both objective and subjective measures. Nightly sleep activity will be recorded using an actigraphy device and cellular physiological organ status will be assessed routinely. A sleep log and a standardized questionnaire focused on evaluating sleep quality will also be used in conjunction with both devices.

**Pilot Study to Test Effectiveness of Silent Nights on Improving Sleep in Subjects Suffering from Chronic Obstructive Pulmonary Disease (COPD)** A 10 person pilot group will measure the effects of Silent Nights on improving quality of sleep in subjects suffering from COPD. A higher prevalence of insomnia has been found in those with COPD versus the general population. Sleep quality will be measured by several validated sleep questionnaires and indexes. The study outcomes will be used to inform a larger study in the near future.

### **Y-Age Aeon®**

**Pilot Study Measuring Oxidative Stress and Inflammation Panel Testing on Tissue Samples from Subjects Using Y-Age Aeon** Samples from eight subjects with varying health histories were taken at different intervals over a period of time to assess the impact of Y-Age Aeon on inflammation and oxidative stress and antioxidant reserves and overall health.

**X-15 [Y-Age Aeon] Focus Group Study** A world-wide focus group study led by over 80 healthcare practitioners familiar with Lifewave patches and proper applications testing the effects of Aeon over a 60-day period. Subjects are asked to track their progress weekly by rating their impact on several objective measures and comparing it to baseline levels.

### **Y-Age® Carnosine**

**Reducing Mental Decline Due to Glycosylation and Oxidative Stress Single** A single-study site conducting a double-blind placebo controlled study on the effects of the Carnosine patches on restoring mental decline and cellular damage due to aging. Improvements in mental cognition will be measured using eeg and standardized tests. Secondary goals of the study are to show that the Carnosine patches stimulate acupuncture points effectively and safely and if skin conductance increases after patch application. This will be evaluated by measuring heart rate variability and skin conduction activity. These two measurements will verify that the patch is actively affecting the bioelectrical system of the body.

### **Y-Age® Glutathione**

A double-blind, placebo controlled study with 20 subjects is currently testing the effects of the Y-Age Glutathione patch on mental focus. Mental focus will be assessed using a series of standardized questionnaires. A secondary goal will be to test for meridian stimulation, which will be evaluated using Gas Discharge Visualization (GDV).

### **Y-Age® System (Carnosine, Glutathione, and Aeon)**

**Effects of Y-Age on varied skin types** A three-month study in Australia is being conducted using all three Y-Age products together: Carnosine, Glutathione and X15 to evaluate their effects on a variety of skin types. A smaller group will be using placebo patches and those results will be compared with the larger group using the active patches. Dermatologist-grade cameras will be used to photograph the subjects on a weekly basis to track the progress on oil secretion, keratin layers, moisture levels and pigmentation.