

**VANCOUVER, CANADA / OCTOBER 7, 2013** – Biolux Research Ltd, the developer of Light Accelerated Orthodontics (LAO™) technology is pleased to announce the publication of results from a multi-centre clinical trial of its extra-oral OrthoPulse™ system. *Photobiomodulation accelerates orthodontic alignment in the early phase of treatment* was published in the peer-reviewed Progress in Orthodontics journal on September 19, 2013 by Kau CH, Kantarci, A, Shaughnessy T, *et al.*

The study took place across four institutions (two universities and two private practices) in the United States, Canada and Thailand using extra-oral OrthoPulse™ prototype devices to test the clinical concept of LAO™. The randomized, controlled clinical trial included 90 subjects (73 test subjects and 17 controls), and change in Little's Index of Irregularity (LII, in mm per week) was used as a measure of the rate of tooth movement during alignment. Test subjects used an extra-oral device which produced near-infrared LED light with a continuous 850 nm wavelength to irradiate the surface of the cheek.

Multi-level mixed effect regression analysis was performed on the data, and the mean rate of change in LII due to photobiomodulation was a statistically significantly 1.12 and 0.49 mm per week for the test and control groups, respectively. The resulting 2.3x acceleration of tooth movement with extra-oral photobiomodulation during the alignment phase of orthodontic treatment suggests that significant time savings can be achieved during orthodontic treatment.

The company is also exploring the clinical efficacy of photobiomodulation in orthodontic space closure and in complete cases, and is currently focusing on developing a new intra-oral approach to LAO™ which is expected to reduce treatment times even further with shorter daily treatment sessions and superior patient compliance. Preliminary intra-oral results, as previously announced, have shown much higher acceleration of tooth movement when compared to extra-oral photobiomodulation.

Dr. Chung How Kau, Chairman of Orthodontics at the University of Alabama at Birmingham and principal investigator of the study states "We are very encouraged by this approach for accelerating orthodontics, and look forward to generating further evidence." According to Dr. Peter Brawn, founder and Chief Scientific Officer of Biolux, "These extra-oral results validate the technical direction and clinical efficacy of LAO™, and set the foundation for our intra-oral research and product development. We believe that our technology and products have the potential to revolutionize the orthodontics market, and feel that our corporate goal of 2/3 reduction of average orthodontic treatment times is achievable."

Reference: Kau CH, Kantarci A, Shaughnessy T et al. **Photobiomodulation accelerates orthodontic alignment in the early phase of treatment.** *Progress in Orthodontics* 2013, **14**:30

Available at: <http://www.progressinorthodontics.com/content/pdf/2196-1042-14-30.pdf>.

#### **About Biolux Research**

Biolux Research Ltd. is a world leader in the development of innovative Light Accelerated Orthodontics™ technology and products for use in orthodontics, implantology, and other dentistry markets. Biolux focuses on product development and clinical research, and its proprietary, patented and patent-pending technologies have been developed to enhance clinical outcomes and dramatically reduce treatment timelines in dentistry in a safe, effective and non-invasive approach. [www.bioluxresearch.com](http://www.bioluxresearch.com)