

# ANTI-SKIN AGING BENEFIT FROM A DUAL WAVELENGTH LLLT DEVICE AND ITS ENHANCED EFFICACY WITH COSMETIC

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## 1 INTRODUCTION

Cosmetic products have been used as safe, pleasant and common daily skincare routine for preventing or slowing down skin aging. Beauty devices have become a solution to augment cosmetic performance by boosting efficacy, but not compromising the user experience and safety. A Low-Level Light Therapy (LLLT) device was developed with Amber + IR LEDs called GentleWave and associated with cosmetic products. The specific wavelengths combination was proved to maximize fiber blast growth in in-vitro testing as photo modulation<sup>1</sup>. Herein, we describe the results of an in-vivo clinical trial to prove the concept.

## 2 MATERIALS & METHODS

### Objective:

A clinical trial was conducted targeting to prove the clinical benefit of GentleWave and its association with an anti-aging serum.

### Methods:

115 Asian female consumers were enrolled from 25-65 years old with light to moderate severity of aging according to a Skin Aging Atlas<sup>2</sup> and global visual assessment. Consumers were separated into 2 groups evenly according to their aging sign level. One group(N=58) used the Dual LED LLLT device with serum and the other group (N=57) used serum only as control group. A clinical grading by a dermatologist was followed at multiple measurement time including baseline, 4 weeks, 8 weeks treatment and 4 weeks after stopping treatment (T8w). Protocol was reviewed by an independent ethics committee and all consumers signed consent letters.

LLLT device is equipped with 590 nm amber LED and 870 nm Infrared light LED. 590nm amber light has been proved to attenuates oxidative stress and modulates UVB-induced change of dermal fibroblasts<sup>3</sup>. A ratio of 75:25 of amber light and IR can reach greatest increase in collagen I and decrease in collagenase<sup>1</sup>.

An anti-aging serum with hyaluronic acid and Proxylane was capsuled in chamber behind a roller ball. Control group applied same serum in a pump with equivalent amount.



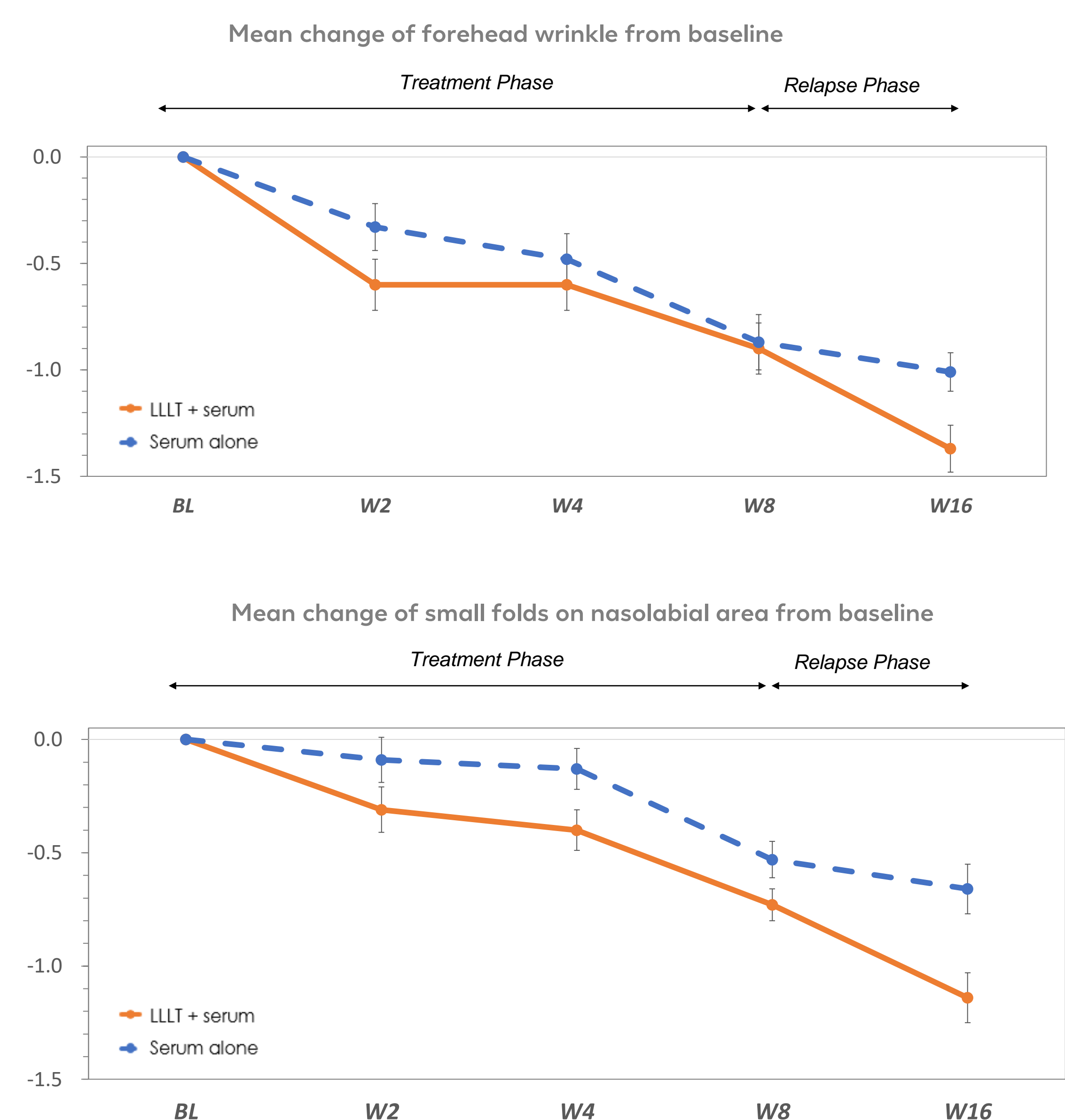
## 4 CONCLUSIONS

The association of LLLT device and cosmetic product is a new and effective approach to augment the clinical efficacy of cosmetic anti-aging products in a safe and user friendly way.



## 3 RESULTS & DISCUSSION

A significant efficacy ( $p < 0.05$ ) of wrinkles and skin texture were observed from both group after 8 weeks' treatment. LLLT device boosted small folds on nasolabial area, texture and radiance improving when using together with serum vs. serum alone group. More significant superior efficacy ( $p < 0.05$ ) was observed almost on all attributes at the ends of a 4 weeks relapse including facial wrinkles, texture, firm and elastic, texture and radiance. No adverse event or skin discomfort was reported in the clinical trial.



## REFERENCES

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