



Going Further in Skin Tanning, a New Solution with Normal Daily Exposure

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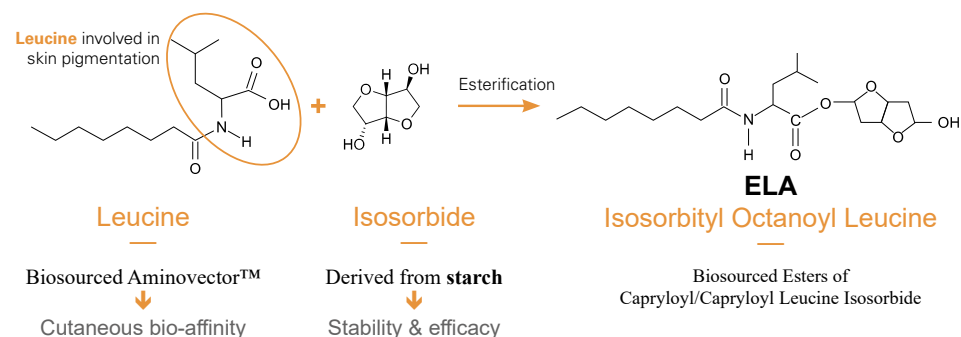
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Introduction

Human skin pigmentation is a complex biological process responsible for the color and tanning of the skin. It is triggered by a signaling cascade leading to melanin synthesis by melanosomes in melanocytes, followed up by their transfer to surrounding keratinocytes [1, 2].

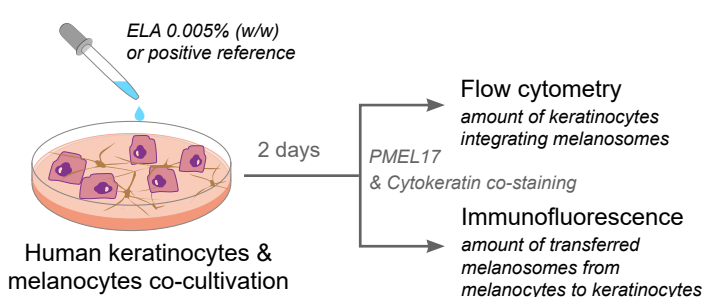
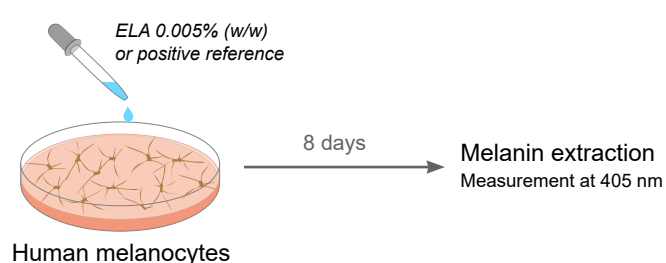
Our aim was to investigate the effect of a newly-developed esterified lipoaminoacid ELA on skin tanning.



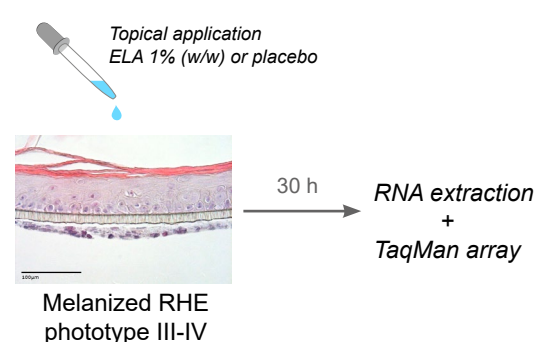
Materials & Methods

1 BIOLOGICAL EVALUATION

PHENOTYPIC ANALYSIS

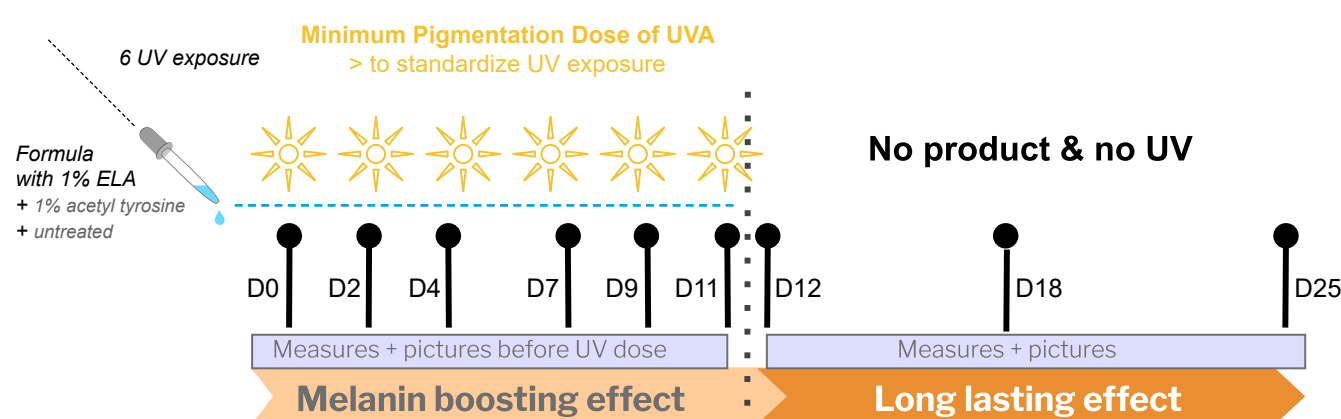


GENE ANALYSIS



2 CLINICAL EVALUATION

• 20 Caucasian women (20-37 years old) – phototype III • Formula with 1% ELA, 1% acetyl tyrosine (Benchmark) or untreated • Application on thighs, twice a day during 11 days + 6 UV-A exposures (mean 16.6J/cm²) during the study + 14 days without product nor UV • Measures: Pictures + measure of L* and b* values to calculate ITA (Individual Typology Angle: a pigmentation effect results in the decrease in ITA)

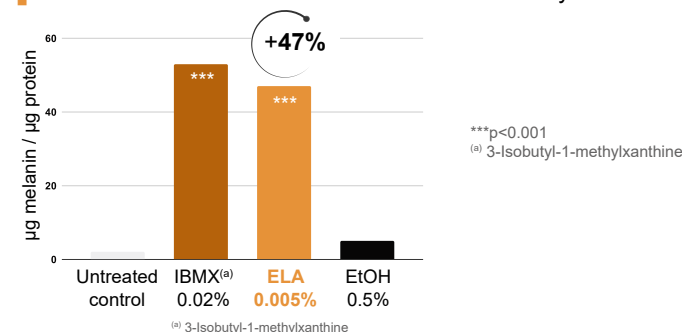


Results & Discussions

1 BIOLOGICAL EVALUATION

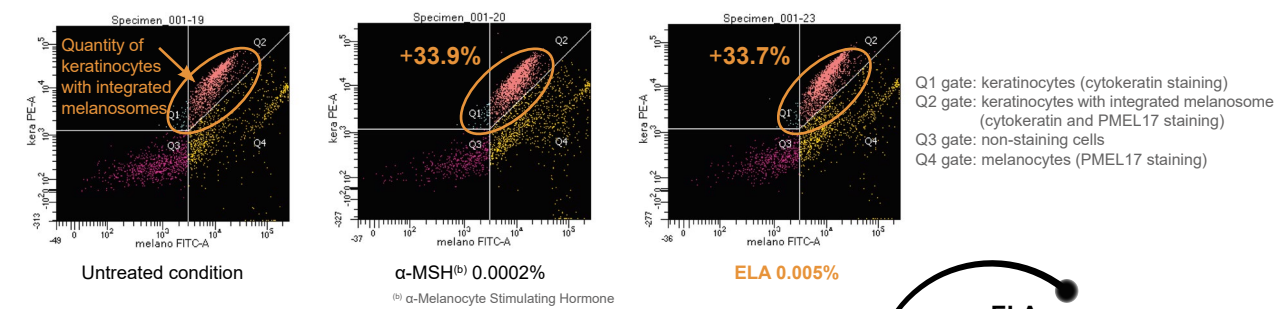
PHENOTYPIC ANALYSIS

Evaluation on normal human Caucasian melanocytes



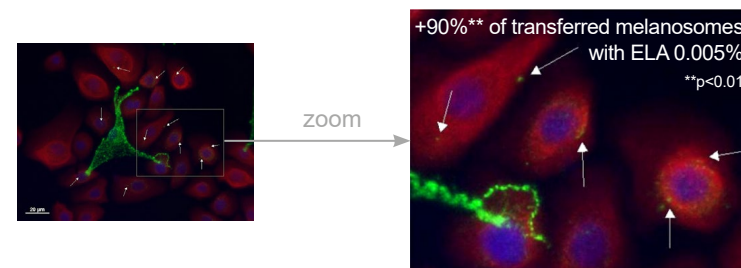
ELA significantly boosts melanin synthesis in both models

Melanosomes transfer by flow cytometry

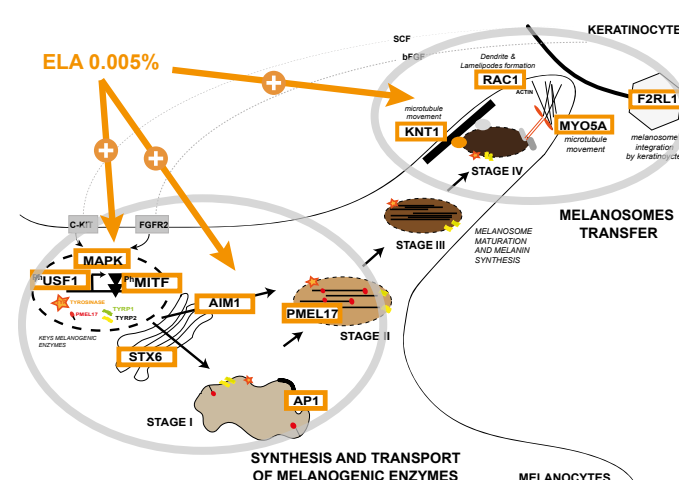


ELA significantly stimulates melanosome transfer quality & quantity from melanocytes to keratinocytes

Melanosomes transfer by immunofluorescence

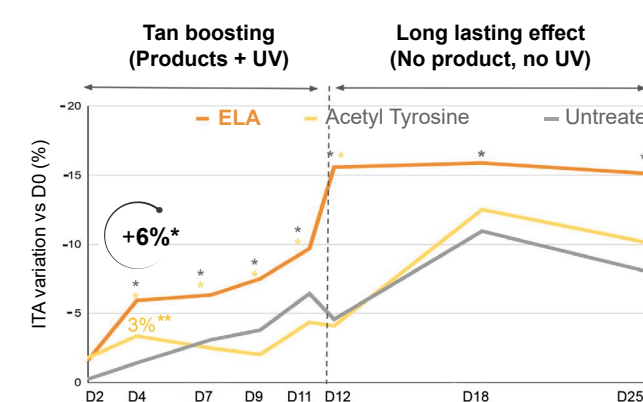


GENE ANALYSIS



ELA significantly boosts the expression of genes involved in melanogenesis [3-14]

2 CLINICAL EVALUATION

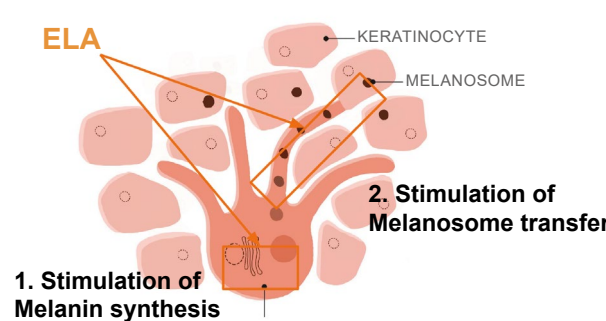


ELA significantly decreases ITA & boosts the tan-up vs untreated area & acetyl tyrosine from day 4 to day 11

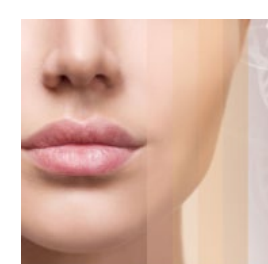
ELA significantly provides a long-lasting tan (up to 15 days after use)

Conclusion

BIOLOGICAL ACTION



CLINICAL BENEFITS



Key points

- Natural bio-inspired AMINOVECTOR™
- Boosts melanin synthesis & transfer
- Tan booster and extender

The bio-inspired esterified lipoaminoacid ELA can be considered as a key active ingredient acting biologically to boost and prolongate skin tanning while limiting sun exposure.

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