



Scientific Overview

Summary of the latest scientific publications on Fluorescent Light Energy (FLE) and its benefits in different skin conditions.

KLERESCA® FLE TECHNOLOGY

EDGE, D. ET AL. 2020. BIOPHOTONIC THERAPY INDUCED PHOTOBIO-MODULATION

In this book chapter, the current mechanisms of action and the related effects of FLE are reported.

Edge, D. *et al.* Biophotonic Therapy Induced Photobiomodulation. In: Technology in Practical Dermatology. Springer, Cham. (2020)

EDGE, D. ET AL. 2019. FLUORESCENT LIGHT ENERGY: THE FUTURE FOR TREATING INFLAMMATORY SKIN CONDITIONS?

The study aims at investigating the cellular mechanisms of action of FLE on key skin and immune cells. FLE serves both aesthetic and therapeutic purposes by modulating cutaneous inflammation, encouraging angiogenesis and enhancing collagen production.

Edge, D. *et al.* J Clin Aesthet Dermatol (2019);12(5):E61–E68.

JALILI, A. 2018. CHROMOPHORE GEL-ASSISTED PHOTOTHERAPY. A NOVEL AND PROMISING PHOTOBIO-MODULATION THERAPY FOR FACIAL INFLAMMATORY SKIN DISEASES AND SKIN AGING

Explanatory article about the documented benefits of photobiomodulation and FLE. The article points the advantages in acne, skin rejuvenation, and its potential as an alternative therapeutic option to conventional therapies.

Jalili, A. J Aesthet Chir (2018) 12(Suppl 1):1.

KLERESCA® ACNE TREATMENT

RUSSO, A. ET AL. 2021. FLUORESCENT LIGHT ENERGY COMBINED WITH SYSTEMIC ISOTRETINOIN: A 52-WEEK FOLLOW-UP EVALUATING EFFICACY AND SAFETY IN TREATMENT OF MODERATE-SEVERE ACNE

Description of the efficacy and safety of the combination of FLE with low-dose isotretinoin or tetracycline in cases of moderate to severe acne.

Russo, A. *et al.*, Clinical Case Reports, 2021; 00:1–12.

KOCEVA, I. ET AL. 2019. FLUORESCENT LIGHT ENERGY: A NEW THERAPEUTIC APPROACH TO EFFECTIVELY TREATING ACNE CONGLOBATA AND HIDRADENITIS SUPPURATIVA

The Kleresca® platform, utilising FLE, effectively treated both acne conglobata and hidradenitis suppurativa. FLE offers a new treatment approach to recalcitrant inflammatory skin conditions.

Koceva, I. *et al.* Clinical Case Reports, 2019; 00:1-4.

MAHENDRAN, A. ET AL. 2018. TREATMENT OF ERLOTINIB-INDUCED ACNEIFORM ERUPTION WITH CHROMOPHORE GEL-ASSISTED PHOTOTHERAPY

Case study of a 49-year-old patient suffering from acne eruption induced by erlotinib treatment. After trying different oral and systemic treatments, the use of Kleresca® Acne Treatment reduced notably the severity of her acne.

Mahendran, A. *et al.* Photodermatol Photoimmunol Photomed (2018) Dec 16. [Epub ahead of print]

NIKOLIS, A. ET AL. 2018. AN EXTENSION OF A MULTICENTER, RANDOMIZED, SPLIT-FACE CLINICAL TRIAL EVALUATING THE EFFICACY AND SAFETY OF CHROMOPHORE GEL-ASSISTED BLUE LIGHT PHOTOTHERAPY FOR THE TREATMENT OF ACNE

Extension trial to evaluate the efficacy of the FLE system as well as the duration of response. The study confirmed the long duration of effect following treatment as well as excellent patient safety profile.

Nikolis, A. *et al.* Int J Dermatol. 2018 Jan; 57(1):94-103.

CARRASCO & JIMÉNEZ. 2018. BIOPHOTONIC THERAPY IN ACNE TREATMENTS (BOOK CHAPTER IN 'ACNE: NEW THERAPIES AND COSMETIC TREATMENTS')

Book chapter that explains the clinical experience in the use of Kleresca® FLE therapy for the treatment of acne patients. The document explains also the efficacy and the patient satisfaction obtained in the clinic.

Carrasco & Jiménez. Chapter 4 in López Esteban, 2018 Acné: Novedades terapéuticas y tratamientos cosméticos. Grupo Aula Médica, S.L., 2018.



ANTONIOU, C. ET AL. 2016. MULTICENTER, RANDOMIZED, SPLIT-FACE CLINICAL TRIAL EVALUATING THE EFFICACY AND SAFETY OF CHROMOPHORE GEL-ASSISTED BLUE LIGHT PHOTOTHERAPY FOR THE TREATMENT OF ACNE

12-week clinical trial to evaluate the efficacy and safety of the FLE system in the treatment of moderate to severe acne vulgaris. The treatment was found to be efficacious and safe, with a sustained clinical response at 12 weeks for the management of moderate to severe facial inflammatory acne.

Antoniou, C. *et al.* Int J Dermatol. 2016 Dec; 55(12):1321-1328.

KLERESCA® ROSACEA TREATMENT

WADE, M. ET AL. 2021. KLERESCA® BIOPHOTONIC THERAPY WITH FLUORESCENT LIGHT ENERGY DECREASES FACIAL ERYTHEMA, IMPROVES SIGNS AND SYMPTOMS OF ROSACEA, AND INCREASES PATIENT SATISFACTION: A POSTMARKET STUDY

In this post-market study, 9 patients with rosacea were treated with Kleresca® FLE. Patients reported a significant improvement in their condition.

Wade M. *et al.*, 2021. J Clin Aesthet Dermatol. 14(7):16-21.

LIU, R. C. ET AL. 2019. TREATMENT OF GRANULOMATOUS ROSACEA WITH CHROMOPHORE GEL-ASSISTED PHOTOTHERAPY

Patient with a 3-month history of papulopustular eruption result of granulomatous rosacea. Modest improvement was observed with topical systemic treatments. After Kleresca®, there was a significant improvement and no relapse after 6 months it was finalized.

Liu, R. C. *et al.* Photodermatol Photoimmunol Photomed. 2019; 1–2.

SANNINO, M. ET AL. 2018. FLUORESCENT LIGHT ENERGY (FLE): TREATING ROSACEA SUBTYPES 1, 2 AND 3

Patients were treated with FLE in order to investigate the role in the treatment in targeting inflammation and erythema in rosacea subtypes 1, 2 and 3. Results proved FLE to be effective with an improvement in the skin texture of the patient.

Sannino, M. *et al.* Clin Case Rep. 2018 Oct 25; 6(12):2385-2390.

BRAUN, S. A. ET AL. 2017. A PHOTOCONVERTER-GEL ASSISTED BLUE LIGHT THERAPY FOR THE TREATMENT OF ROSACEA

Patient suffering from papulopustular rosacea receives FLE treatment. After 5 weeks, the patient showed a marked reduction of the inflammatory reaction and an overall improvement of the large-pored skin type.

Braun, S.A. *et al.* Int J Dermatol. 2017 Dec; 56(12):1489-1490.

KLERESCA® SKIN REJUVENATION

NIKOLIS, A. ET AL. 2016. A RANDOMIZED, PLACEBO-CONTROLLED, SINGLE-BLINDED, SPLIT-FACED CLINICAL TRIAL EVALUATING THE EFFICACY AND SAFETY OF KLOX-001 GEL FORMULATION WITH KLOX LIGHT-EMITTING DIODE LIGHT ON FACIAL REJUVENATION

Evaluation of the efficacy and safety of the skin rejuvenation treatment with FLE. The evaluation was done comparing skin biopsies and the increase of collagen from baseline.

Nikolis, A. *et al.* Clin Cosmet Investig Dermatol. 2016 May 13; 9:115-25.

BEFORE AND AFTER OTHER PROCEDURES

SCARCELLA, G. ET AL. 2020. EFFECTIVE REMOVAL OF SOLAR LENTIGINES BY COMBINATION OF PRE- AND POST-FLUORESCENT LIGHT ENERGY TREATMENT WITH PICOSECOND LASER TREATMENT

Use of Kleresca FLE treatment prior to the laser targeting of solar lentigines aids in the successful removal of the pigmented spots with one single laser session.

Scarcella, G. *et al.*, Clinical Case Reports, 2020; 8:1429–1432.

GERBER, P. A. ET AL. 2019. BIOPHOTONIC PRE-TREATMENT ENHANCES THE TARGETING OF SENILE LENTIGINES WITH A 694NM QS-RUBY LASER

Combination of Kleresca® FLE to intensify and demask underlying solar lentigines before targeting them with laser therapy. Kleresca® FLE successfully intensifies solar lentigines, preparing the skin before and rejuvenating it after more invasive therapies.

Gerber, P. A. *et al.* Photodermatol Photoimmunol Photomed. 2019; 00:1–2.