



FLUORESCENT LIGHT ENERGY (FLE)

Discover the benefits



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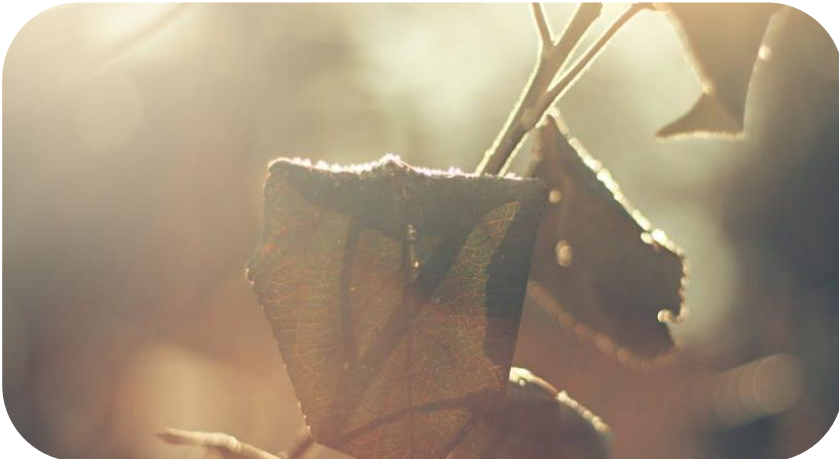
Take home messages



WHAT IS LIGHT



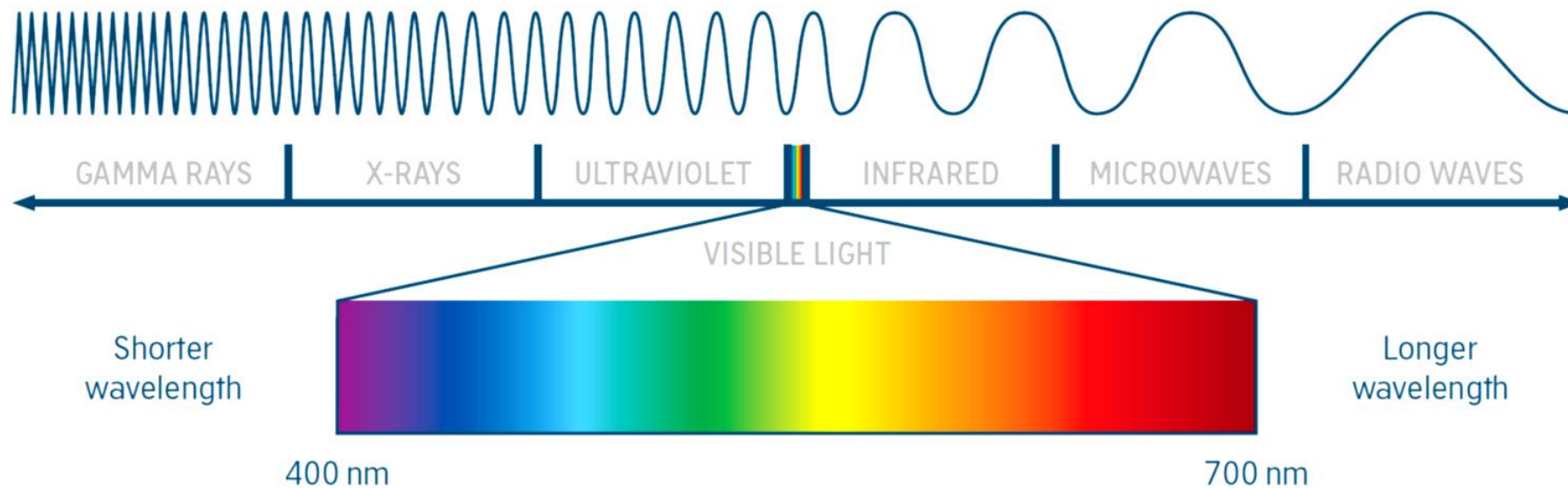
IMPORTANCE OF LIGHT

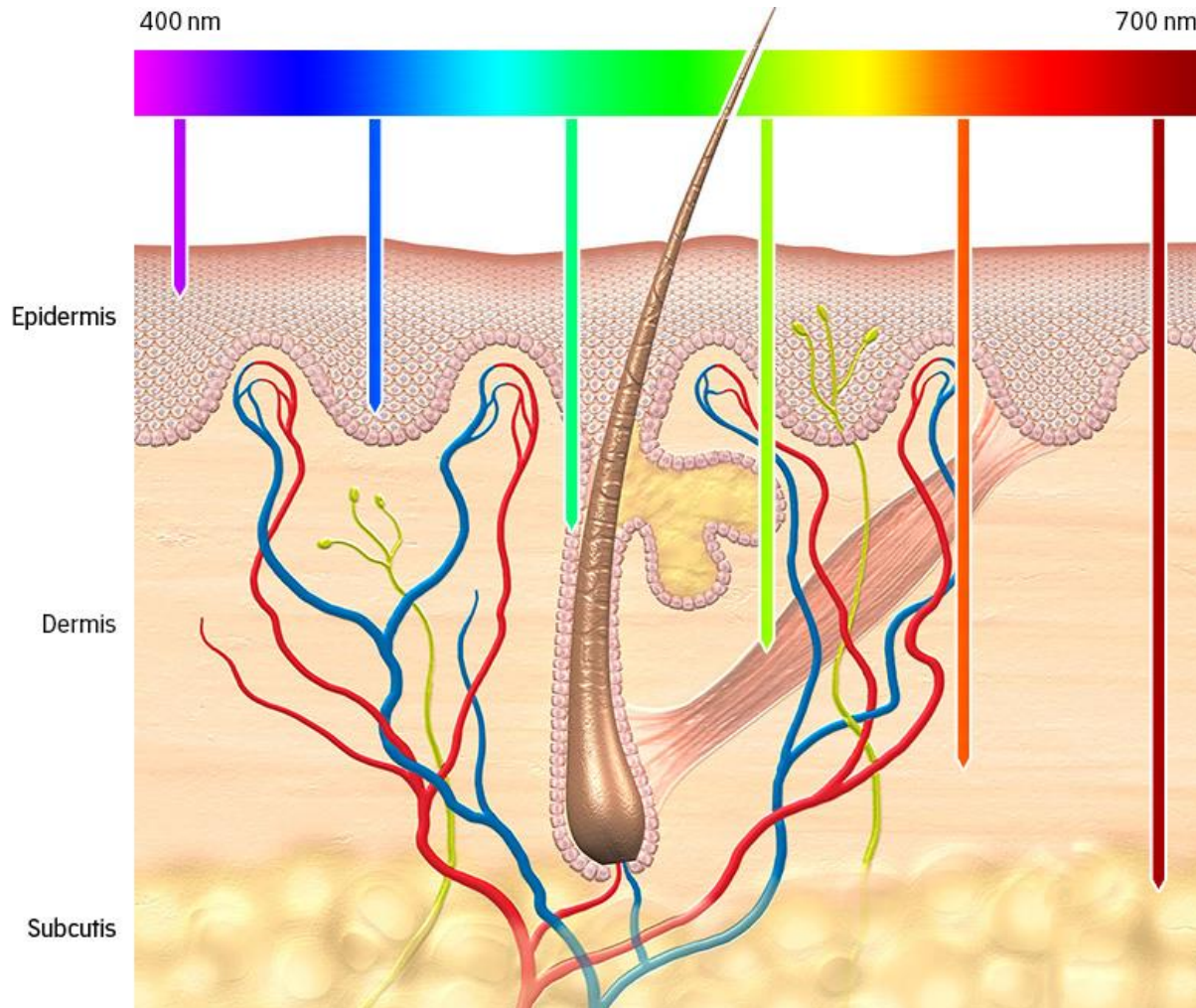


- Light is an important part of our daily life and present in many processes
- Light is also used in many medical treatments, for example:
 - Dermatology conditions
 - Wound healing
 - Pain treatment
 - Mood and sleep related conditions

WHAT IS LIGHT?

- Light moves in waves, measured in nanometres (nm) (1 nm = one billion of a meter)
- Visible light is just a very small part of the whole spectrum
- Visible light is defined in the range of 400 – 700 nm





PENETRATION OF LIGHT IN THE SKIN

Depending on its wavelength, light penetrates differently into the skin, gaining access to a variable selection of biological elements^{14,16}

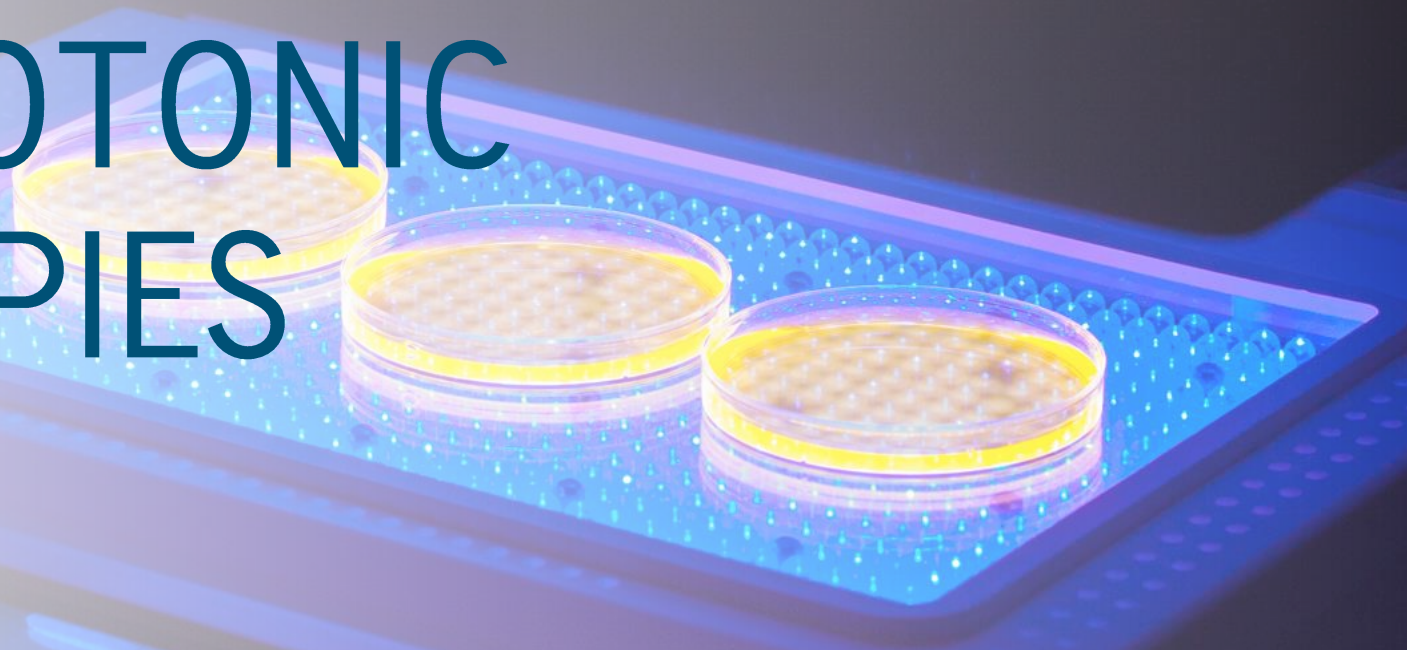


LIGHT THERAPIES

- Different treatments for use in dermatology use light:
 - Photodynamic Therapy (PDT)
 - Laser Therapies
 - Intense Pulsed Light (IPL)
 - Light-emitting diode (LED)
 - Kleresca® - Fluorescent light energy
- Different sources of light have different effects in the treated area^{14,16}



BIOPHOTONIC THERAPIES



BIOPHOTONICS



- Interaction of light with biological systems (molecules, cells, tissues and whole organisms)
- Modulates several aspects of cell biology¹⁵
- Discover a new source of light and its effects

FLUORESCENT LIGHT ENERGY (FLE)⁵⁻¹³

- Normalise cellular activity
- Improve overall skin quality
- Limited to no downtime
- Pleasant & comfortable treatment



INNOVATIVE PHOTOBIOMODULATION

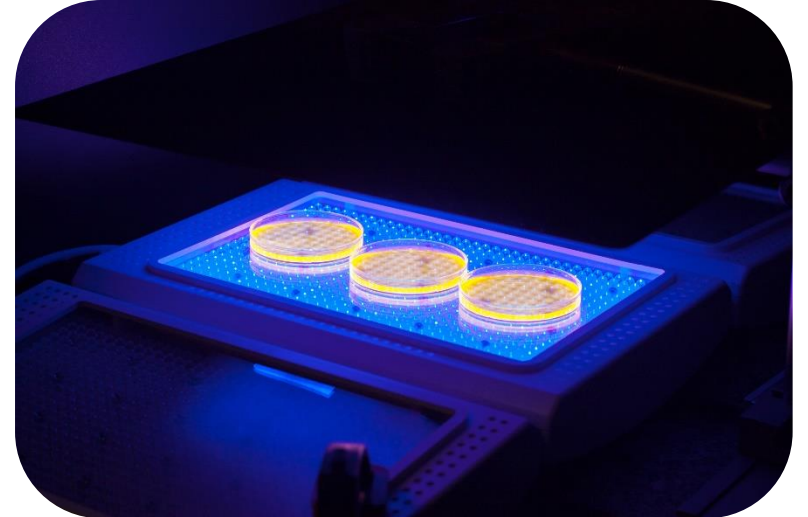


Interaction of light with the biological systems, modulating several aspects of the cell biology¹²⁻¹⁵

- Reduces inflammation
- Increases the build-up of collagen
- Normalises cellular activity

CLINICAL AND BIOLOGICAL EFFECTS

- Individual wavelengths trigger intra-cellular photo-biochemical reactions
- Documented effects include¹⁴:
 - Anti-inflammatory response
 - Post-interventional inflammation and erythema
 - Increased normalized cell growth for wound healing
 - Photorejuvenation
 - Scar prevention and recovery

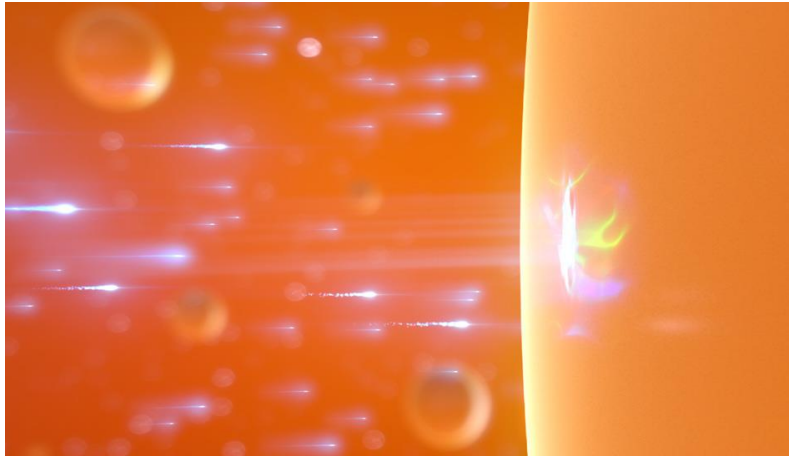




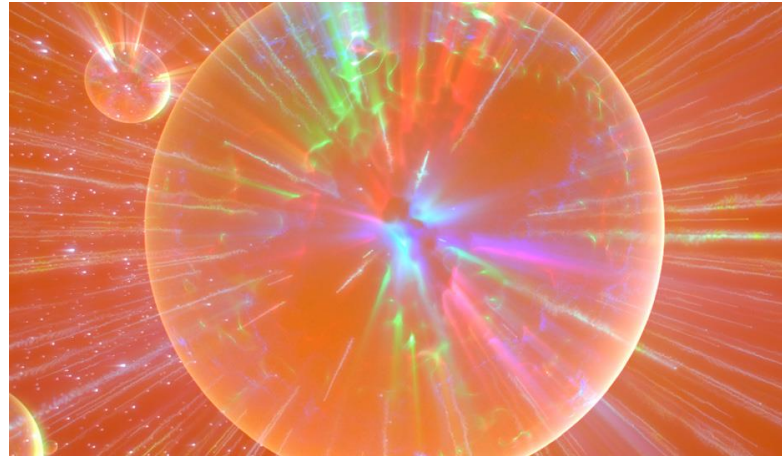
KLERESCA[®] MODE OF ACTION



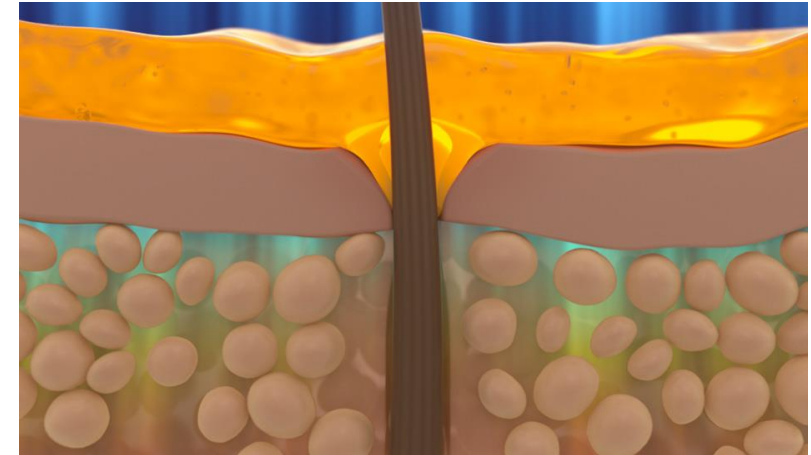
INSPIRED BY PHOTOSYNTHESIS



Photoconverter gel absorbs blue light from the lamp

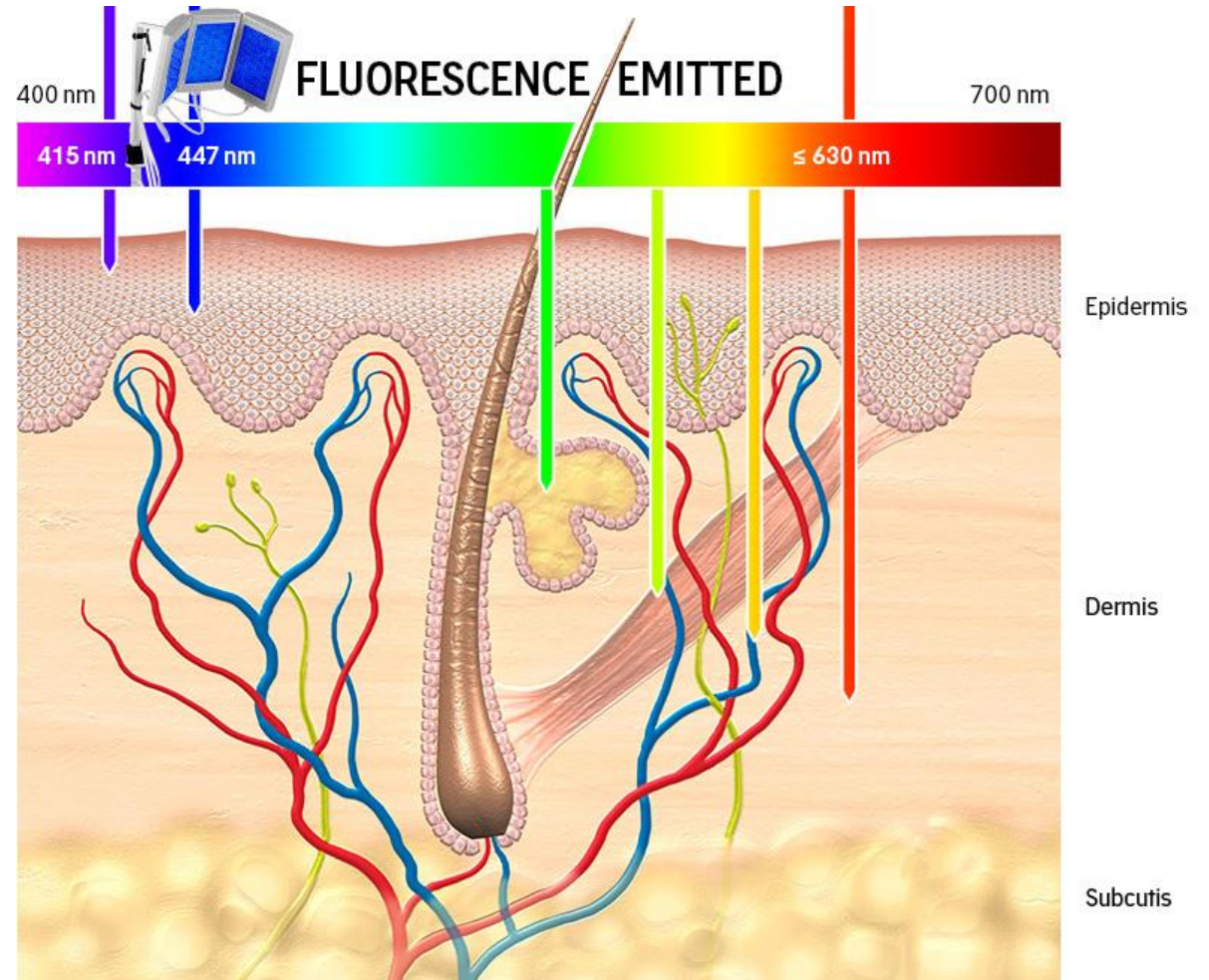


Chromophores in the gel convert the blue light into fluorescent light energy (FLE)¹³



Photobiomodulation stimulates the skin's own repair mechanisms^{14,15}
Unique and dynamic photonic output, acting on the epidermis and the dermis¹³

DISCOVER THE POWER OF FLUORESCENCE



The light emitted and the fluorescence generated have different benefits on the treated skin

SHORT PENETRATION

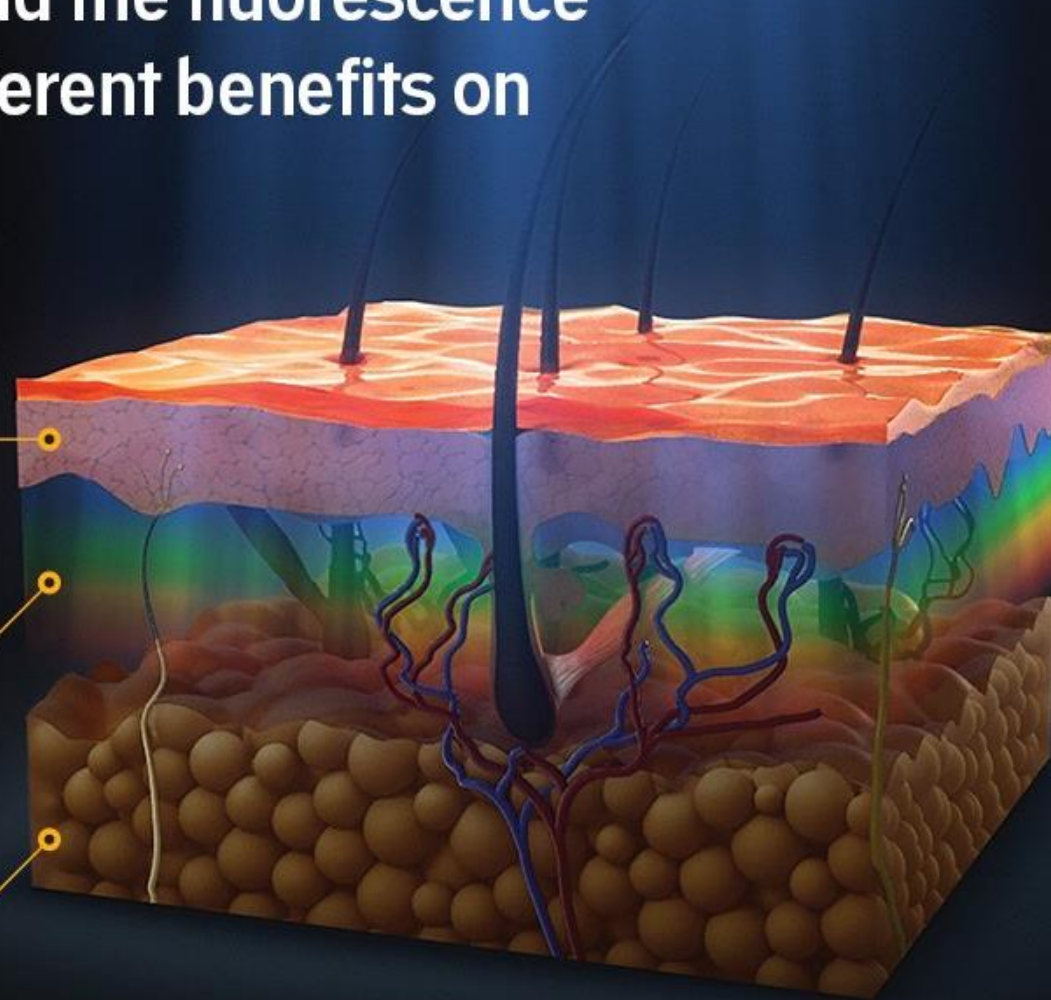
- Control of *P. acnes* bacterial colonization
- Reduction of microbial induced inflammation
- Collagen stimulation

DERMAL TISSUE PENETRATION

- Fibroblast activation & proliferation
- Stimulate healing response
- Skin rejuvenation

DERMIS TISSUE PENETRATION

- Vascular activation
- General inflammatory reduction
- Collagen induction and rejuvenation



KLERESCA® LAMP

BLUE LIGHT

FLUORESCENT
LIGHT ENERGY

PLEASANT AND EASY TO USE³²⁻⁴²



The skin is cleaned and Kleresca[®] gel is applied



The gel is illuminated for nine minutes using the multi-LED Kleresca[®] lamp, together creating fluorescent light energy that stimulates the skin

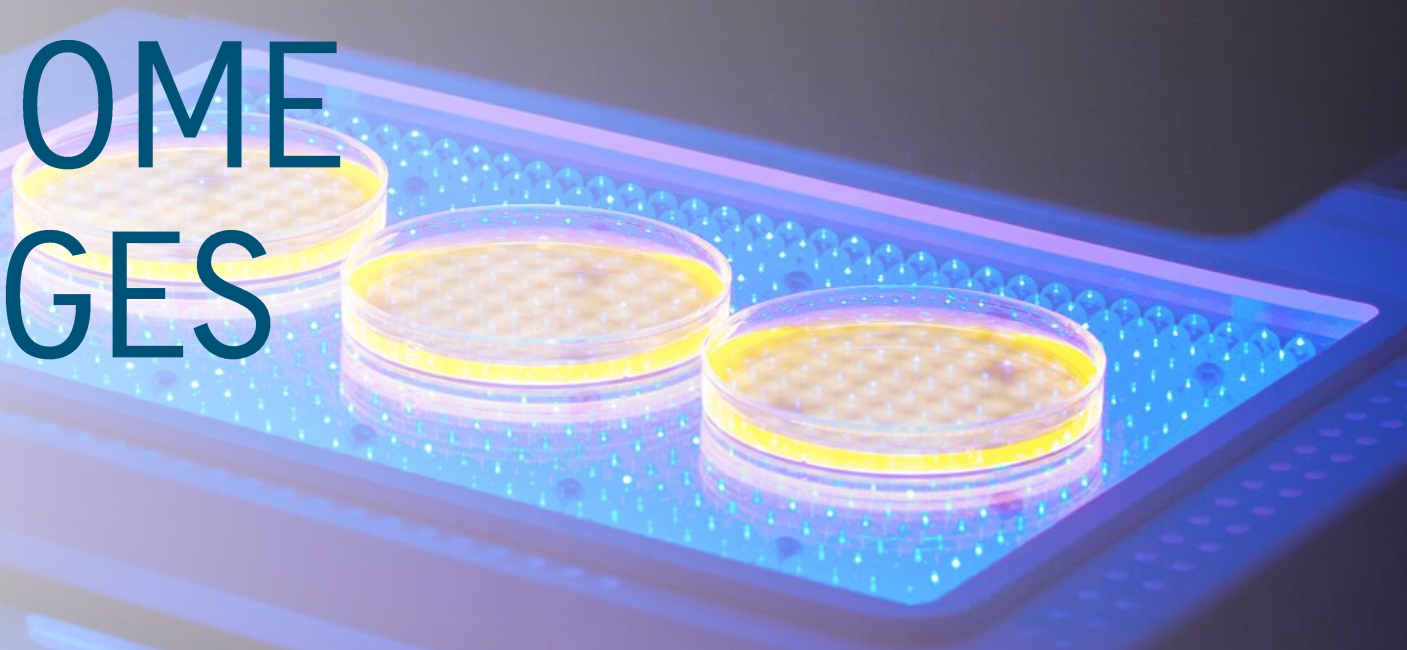


The gel is removed and the skin is cleaned and moisturised. With little to no-downtime, even make up can be applied





TAKE HOME MESSAGES



TAKE HOME MESSAGES ABOUT LIGHT

- Light is important in our daily life and it is also used in many medical treatments, like dermatology conditions and wound healing.
- Light moves in waves and it is measured in nanometers (nm). Visible light ranges from 400 to 700 nm.
- Depending on its wavelength, light penetrates differently into the skin
- Biophotonics is the interaction of light with biological systems, and modulates several aspects of the cell biology.
- Photobiomodulation helps in the reduction of inflammation, increases collagen build-up and normalises the cell activity.
- Kleresca® mode of action is inspired by photosynthesis:
 - The photoconverter gel absorbs blue light from the lamp
 - Chromophores in the gel convert the blue light into fluorescent light energy (FLE)
 - Photobiomodulation stimulates the skin's own repair mechanisms
- The light emitted and the fluorescence generated have different benefits on the treated skin like control of *P. acnes*, fibroblast activation and proliferation, stimulation of healing response and vascular activation.
- Pleasant and easy to use treatment





Do you have further questions?
Send us a mail at academy@kleresca.com

Do you want to check your knowledge about what is light and the mode of action of Kleresca®? Do the test to see how much you have learned and get your certificate of completion!

TAKE THE TEST



Sharing the knowledge

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