

Improved Treatment of Keloids and Other Cutaneous Fibrotic Diseases

Tech ID: 23101 / UC Case 2013-520-0

ABSTRACT

Researchers at University of California, Davis have discovered that light emitting diode (LED) generated red light and infrared light can modulate skin cell functions associated with skin fibrosis.

FULL DESCRIPTION

Scarring is a widespread problem for patients of all walks of life. Patients with scars can encounter substantial social and psychological problems. Certain types of scarring can be particularly noticeable because they become raised after healing. These types of scars are characterized as hypertrophic or keloid scars. Keloid scarring is particularly problematic because the scar spreads beyond the margins of the original wound and invades surrounding skin. Ultraviolet phototherapy is currently used to treat some fibrotic skin diseases, however, this causes DNA damage associated with skin cancers.

Researchers at UC Davis propose a method of treating keloid scars by administering specific doses of LED infrared or red light. Preliminary studies in vitro show that red light at specific wavelengths and dosages can be effective in decreasing fibroblast proliferation and migration. Researchers envision that the preliminary findings will serve as the foundation for future LED-based red and infrared light management of keloid and other scars.

APPLICATIONS

- ▶ Treating keloid scars

FEATURES/BENEFITS

- ▶ Non-invasive
- ▶ Low-cost
- ▶ Safe for patient use at home
- ▶ Portable
- ▶ Easy to use
- ▶ Small, handheld size

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,861,832	01/09/2018	2013-520

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OTHER INFORMATION

KEYWORDS

Skin Fibrosis,
 Phototherapy, Treatment of Keloids and Other Cutaneous Fibrotic Diseases, Scarring, Light Emitting Diode

CATEGORIZED AS

- ▶ **Biotechnology**
- ▶ Health
- ▶ **Medical**
- ▶ Disease: Dermatology

RELATED CASES

2013-520-0

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