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TOLEDO
1872

seeks partner to license

Accelerated Wound Healing and Reduction of Wrinkles

Wound healing is the body's natural process of regenerating dermal and epidermal tissue. When an individual is wounded, a set of complex biochemical events takes place in a closely orchestrated cascade to repair the damage. Wound healing is generally considered to be a process occurring in three phases; inflammation, granulation, and fusion. Inherent to this process is the enhanced production of several types of collagen. Collagen deposition is important because it increases the strength of the wound, and cells involved in the healing process attach to, grow and differentiate on the collagen matrix. It has long been thought that increased collagen synthesis will accelerate skin healing. In addition, as we age the skin's ability to replace damaged collagen diminishes and more gaps and irregularities develop in the collagen mesh, eventually leading to wrinkles. Thus, an important target of wrinkle prevention and elimination regimen is to reduce collagen breakdown and increase its supply. Stimulating collagen synthesis in aged skin has been shown to reduce wrinkles and improve skin texture. Therefore, a novel signaling pathway induced by cardiotoxic steroids has been identified that stimulates collagen synthesis by dermal fibroblasts, and this can be exploited to accelerate wound healing and reduce wrinkles.

The University of Toledo spin-off company, Accelerated Healing, LLC, is seeking partners in developing the use of cardiotoxic steroids as stimulators of collagen synthesis to accelerate wound healing and to prevent and eliminate wrinkles.

Applications:

1. Acceleration of wound healing
2. Reversal of Aging related loss in skin collagen content

Advantages:

1. Novel approach
2. Free of deleterious side effects
3. Potentially additive to other approaches

This invention is patent pending

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