Current Work

Poster Number: 15266

Abstract Title: A MODIFIED COLLAGEN GEL DRESSING RESOLVES WOUND INFLAMMATION THROUGH MICRORNA-21 DEPENDENT M2 MACROPHAGE POLARIZATION

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Featured on the Cover

Wound Repair And Regeneration

“A modified collagen gel dressing promotes angiogenesis in a preclinical swine model of chronic ischemic wounds”

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OP-106B
Findings of the application of Stimulen® Gel (Modified Collagen Gel or MCG) on the wound healing process in three different animal wound models.

Increased recruitment of inflammatory cells to the wound-site, an important step in preventing infection and promoting healing of the wound.

Increased recruitment of endothelial cells that form new blood vessels.

Enhanced transition of inflammatory cells from a pro-inflammatory to a reparative state, allowing for a timely healing response.

Higher abundance of mature collagen fibers, associated with improved biomechanical properties.

Formation of new blood vessels and increased blood flow to the wound.

Improved engulfment by inflammatory cells, a process that is essential for the clearing of harmful entities and advancement of the wound healing process.

Resolution of wound inflammation through microRNA-21 dependent M2 macrophage polarization.

Greater collagen I:III ratio in the wound, indicative of greater tensile strength and resistance to reopening caused by shear stress.

Recruitment of the reparative type of immune cells that are responsible for preventing excessive inflammation and further damage.

Increase in the length of rete ridges reestablishes more healthy skin that is well nourished and more resistant to reopening.


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