New Collagenase Formulation for the Treatment of Wounds

The new collagenase formulation has a longer shelf life and is more effective than currently marketed topical collagenase formulations.

Background:
Chronic decubitus ulcers occur mostly in patients over the age of 70 (two-thirds of all cases), with a prevalence in nursing homes between 17% and 28%. Among the neurologically impaired, the prevalence is 5%-8% annually, and in hospitalized patients, about 3%-11%. It also contributes to 7-8% of the deaths in paraplegics. Unfortunately, the recurrence rate of chronic ulcers is 90%. Further, the treatment of pressure sores is estimated to cost about $1 billion annually. Similarly, burn wounds are widespread across the nation. Approximately 500,000 people require treatment for burn wounds annually in the United States, and 40,000 of those patients require hospitalization. Burn wounds claim approximately 4000 lives each year. Thus, there exists a dire need to devise more effective treatment of chronic ulcers and burn wounds.

Technology Description:
Dr. Harry Soroff, Professor, Department of Surgery, Dr. Marcia Simon, Professor, Department of Oral Biology, developed a new collagenase based formulation for the debridement, or non-surgical removal of dead or foreign tissue for the prevention of infection or necrosis and to help healing, of burn wounds and ulcers. The new formulation has a long shelf life and is more efficacious than currently available medication.

Rat Tail Collagen Gel Assays:
Top Row: Collagenase Free PLO’s
Second Row: Santyl™
Bottom Two Rows: New Formulation

Patents and Publications:
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Advantages
- More effective in collagen breakdown than currently available formulations
- Long shelf life
- May aid in debridement of chronic decubitus ulcers and burns

Applications
- Treatment of burn wounds and ulcers

Sean Boykevisch, PhD
Licensing Associate
Office of Technology Licensing & Industry Relations
N5002 Melville Library
Stony Brook University
Stony Brook, NY 11794-3369
631-632-6952 (voice)
Sean.Boykevisch@stonybrook.edu
www.stonybrook.edu/research/otlr