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RESEARCH DRIVES HOPE

Reaching a desired destination is a lot easier when you have good roads and a map to guide you. Anyone who has ever taken a car trip understands these basic principles. Just like the famous Route 66 impacted America, revolutionary research is impacting how wound care is being delivered today and for decades to come.

U.S. Route 66 provided an easier, flat, southern route across the country and became a major path to those migrating west from Chicago to California. The road became so famous in the 1960's that it inspired a popular song and a TV show. Nicknames such as Will Rogers Highway, Main Street of America, and the Mother Road were given to the 2,448 mile stretch of the US highway system. When the Dust Bowl and the Great Depression left countless families without hope and a means of survival, this simple paved road held the promise of a better life in California.

"Knowing Stimulen® Gel can prompt healing in avascular wounds is a GAME CHANGER" -D Gallagher MS, CWOCN, CFCN

> Having a proven path to follow makes any journey easier. Just like Route 66 guided countless families as they desperately searched for a better future, the newest research studies on

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1746 Levee Road, North Kansas City, MO 64116 phone: (800) 247-9951 phone: (816) 221-2442 fax: (816) 221-3995 email: info@elastogel.com • website: <u>www.elastogel.com</u>

Upcoming USA Events

FLORIDA/WOCN MARCH 6 - 7, 2015 COCOA BEACH, FL ******

WOUND HEALING INSTITUTE MARCH 16 - 17, 2015 BRANSON, MO ******

AMERICAN BURN ASSOCIATION APRIL 21 - 24, 2015 CHICAGO, IL ******

SAWC/WHS APRIL 29 - MAY 3, 2015 SAN ANTONIO, TX ******

> LEADING EDGE COLORADO LTC MAY 12 - 13, 2015 VAIL, CO ******

COLORADO HOME CARE MAY 14 - 15, 2015 KEYSTONE, CO ******

NEW ENGLAND HOME CARE & HOSPICE MAY 19 - 21, 2015 MANCHESTER, NH ******

WOCN JUNE 6 - 10, 2015 SAN ANTONIO, TX

ASK THE EXPERT Featuring Edward Stout, PhD

Ask The Expert is a new feature for the Heartland Herald. It will feature experts from across the world and share their expertise and unique insights. Every journey has a beginning. This month features Dr. Edward Stout, founder and CEO of SWT. Dr. Edward Stout is a leader in his field. He completed his education in organic chemistry with a PhD from the University of Arizona and is specialized in the development of polymers for medical applications. Over the past 30 years, Dr. Stout has created countless wound care technologies for a number of companies. He is where **our** journey starts.

Stimulen[®] was not the first collagen on the market, is there a story behind your collagen?

Prior to bringing Stimulen® to the market in 2004, it was well-known that poor nutrition impaired wound healing. As a scientist, I wanted to build on the existing research and develop a new and improved collagen. Think back to basic science; collagen is a protein that serves as a building block that all cells need to grow. It was important that the improved formulation I developed for SWT be able to readily incorporate itself into the wound bed without any materials that might be seen as a foreign body. I was able to accomplish this by hydrolyzing our collagen. The development of Stimulen® began with a recognized need. A hypothesis was developed and that led to a new product, and a series of trials. For years, clinicians have shared their incredible results. We now have solid research proving the hypothesis and explaining the science behind the amazing results.

A lot of companies offer a collagen dressing, why does Stimulen® have such a dramatic impact on wound healing?

I can't give away company secrets and proprietary information, but it is important to remember that collagen comes in a variety of forms and has a variety of uses. Collagen has been used for years for filling facial wrinkles and improving the mobility of painful joints. Collagen is frequently bovine in origin but other animals such as chickens, swine, and fish can be sources for collagen. The type of collagen and how it is processed is also key.

Can you tell me more about different types of collagen and processing?

Collagen is primarily an animal protein. However, there are dozens of different types of collagen that have been identified. Each of these types has distinct properties and each can be further modified to meet a variety of uses. It is my theory that by hydrolyzing collagen, the modified protein molecules are readily incorporated into cells. In delayed wound healing, these cells become somnolent. Once the collagen is incorporated into the cells, it is able to stimulate "sleepy" cells to increase the production level of proteins that are required for wound healing. These proteins differentiate to produce the necessary extracellular matrix and granulation tissue to fill wounds and finally grow new skin resulting in a healed wound. After all, isn't that our goal in wound care!

RESEARCH DRIVES HOPE

(Continued from page 1) modified collagen gel (Stimulen®)are paving a path for hope and healing. Patients who suffer from the consequences of poor circulation deal with pain, nonhealing wounds and the everpresent fear of amputation.

Peripheral Vascular Disease (PVD) includes alterations in skin integrity that lead to venous, arterial, neuropathic, and mixed disease Vascular compromise is clearly the underlying principle involved in arterial, mixed and neuropathic wounds. Common causes are increasingly prevalent in today's populations. Obesity, hypertension, atherosclerosis, and diabetes are presentations seen with patients suffering with PVD. Other patients may develop an arterial compromise because of trauma or an arterial embolism Lower limbs without adequate blood flow will have diminished hair distribution and abnormally pale, cool skin. Individuals who have PVD commonly have increased pain with elevation and/or exercise. These conditions have a significant, overwhelming impact on an individual's quality of life. When a wound develops as a complication of PVD, healing is especially challenging because of the lack of blood



flow. Some patient's can be managed by improving circulation with medications and/or therapies and others may be improved with surgery. These options, however, are not applicable for every patient.

Without adequate circulation to the tissue, delayed healing is the reality, morbidity and mortality are increased, and amputation is a very real risk. In the December issue of Wound Repair and Regeneration, an original research article, "A Modified Collagen Gel Dressing Promotes Angiogenesis in a Pre-clinical Swine Model of Chronic Ischemic Wounds" offers hope for patients with avascular wounds. The research examined the effect of modified collagen gel (MCG) on full thickness wounds created in bi-pedicle flaps on the backs of swine. Ischemia was established and verified by Laser Doppler. Without adequate circulation, experienced wound care providers would not expect wound healing to occur- even with the use of a variety of advanced wound care technologies. In this research study, healing did occur when wounds were treated with MCG. Seven days after the wounds were created. macrophage recruitment was significantly higher in wounds treated with MCG.

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Upcoming Global Events

7th INTERNATIONAL CONFERENCE ON HEALTH ISSUES IN ARAB COMMUNITIES 1-7 MARCH 2015 AL BUSTAN PALACE, MUSCAT, OMAN ******

DIABETIC FOOT GLOBAL CONFERENCE 19-21 MARCH, 2015 LOS ANGELES, CA

INTERNATIONAL WOUND MANAGEMENT 30 JUNE - 1 JULY, 2015 MANCHESTER, UK

5TH CONGRESS OF WUWHS 25-29 SEPT, 2016 FLORENCE, ITALY

INTERNATIONAL BIOTHERAPY & WOUND CONFERENCE 16 - 18 OCT 2015 CENTRE, MAYLAYSIA

SWT JOINS OSU TO TAKE EDUCATION ACROSS INDIA

The Ohio State University (OSU) and the All India Institute of Medical Sciences (AIIMS) collaborated on bringing a series of educational offerings to India. India is an important emerging market and not unlike most countries is facing a tremendous need for effective wound care solutions. India's population is very diverse and the need for wound care is equally diverse. Clinicians may be asked to treat the same conditions as clinicians anywhere in the world along with an unusually high incidence of foot wounds. In Kolkata, the team consulted with local physicians on a series of patients. Wounds on the feet are a major concern. Because diabetes is pandemic, diabetic foot ulcerations are common although burns from cooking over open fires and traumatic injuries were also seen.

Dr. Chandan Sen, H3C Conference Chair accompanied by a team of researchers, educators, and clinicians provided multiple sites across

India a blend of education and clinical application. Southwest Technologies was one of the premier companies participating in both preconferences and general sessions. The SWT product line is ideally suited for India.



Dr. Chandan Sen introduces H3C to an eager audience

ElastoGelTM, Gold

Dust®, and the Simulen® product line are perfect solutions for the wide variety of wound etiologies. From simple burns and minor wounds to those posing a risk for limb loss, the SWT product line is ideal. These products are simple to use and can be expertly applied by consumers and clinicians alike. Unlike other products and technologies, there is very little risk if products are misused. The unmatched versatility allows facilities to maintain a very limited formulary and yet address most wound types. The fungistatic and bacteriostatic properties not only minimizes the risk of delayed healing secondary to infection but also prevent infections from taking hold. SWT products all maintain moist wound healing while taming even the heaviest levels of exudate. Not only is the SWT product line perfect for India, it is perfect everywhere.

The delegation journeyed from pre-conferences and clinics in Kolkata to inaugurating India's first National Facility for Regenerative Medicine in New Delhi to the main H3C conference in the Taj Palace, in Mumbai. At each stop, the significance of this delegation's presence was clear. Every venue was filled to capacity. Dignitaries welcomed the delegation along their travels and promised government support for future endeavors. Dr. Edward Stout, Founder and CEO, John Phillips, President, Angie Stout, Vice President of Marketing, and Lynn Lambert, Director of Education/Strategic Planning represented SWT. On numerous occasions, Angie Stout, skillfully managed clinicians standing 5 deep hungry for information about the benefits of these amazing products.

Thanks to the efforts of the SWT team and the overwhelming interest in these incredible products, we hope that India will be able to join the ranks of so many other countries that benefit from the SWT mission of "Treating the World Well"®



Dr. Ed Stout, CEO, is charmed by India's hospitality and culture.



John Phillips, aka "Cobra Charmer", enjoys India's street scene



Angie Stout charms a standing room only crowd of clinicians eager to learn about SWT products

MIDDLE EAST EXPANSION EFFORTS YIELD PROMISE

SWT is proud to support Dr. (Col) K.M. Harikrishnan who will be a presenter at the 7th International Conference on Health Issues in Arab Communities being held March 1 - 7, 2015. Dr. Harikrishman will share his research documenting the benefits seen when SWT products were added to a variety of common wound etiologies in a poster presentation.

This research is the result of the ongoing efforts to serve the needs in the Middle East. Larry Baratta, MD and Annie Brossard, have made several trips to Jordan, Iraq, Kuwait, Saudi Arabia, Bahrain, Qatar, Oman and United Arab Emirates. On each trip, clinicians have been introduced to the benefits of the SWT product line for wound care. Interest has increased with each trip as trial after trial met with successful outcomes. Currently SWT is proud of the progress that is being made toward registration and the governmental requirements to open the market.

TRIBUTES AND TESTIMONIALS

"I had a Stage 4 wound on my coccyx for nearly 3 years. In June, I was admitted to the hospital and that is when the Emergency Department discovered the wound. I was admitted and the wound was debrided the next day. The wound was a big hole that extended down to the bone. I was sent home on some high powered antibiotics and began seeing a wound care doctor. I had been seen repeatedly and tried on different products. Nothing worked. I developed reactions and had to have more antibiotics. I developed a track and was on a wound VAC until I developed an allergy to the glue that held it on. Other treatments were tried and nothing worked. The wound VAC did not collapse the tunnel and the wound care doctor was stumped.

He had my wife clean the wound everyday and the home health nurse came once a week. We did this for a year and still no healing. Surgery was suggested to remove my tailbone and have a flap placed over the clean wound. We decided this was a real but a last option.

In October, I did some research on the internet and found information on ElastoGel[™]. I called the company and talked to a wound care consultant, D. Gallagher, who was there that day. She listened to my story and gave me suggestions on treatment options. I saw my wound doctor and he said we might as well try what she suggested since nothing else had worked. I received samples of Stimulen® Gel, Gold Dust® powder, and ElastoGel[™]. My wife and the home health nurse did the first treatment early in November. By Thanksgiving, the tunnel was collapsed and the wound was shrinking!! On December 15, 2014, my wound care doctor declared the wound closed and stopped the home health visits after two and a half years. My wound is finally closed and my wife is not longer having to treat it. She is really happy.

Again, thanks for these amazing products. I have been recommending them to others."

Gene Walby, a grateful patient in Florida

Thank you for "Gold Dust®". I am using it on 4 pyoderma gangenosum wounds around my ostomy. All are healing beautifully. With Stimulen® and Gold Dust® there is no pain when cleaning and more tissue grows with every change. Thanks to your miracle dressings, I will be able to leave on a cruise to celebrate our 50th wedding anniversary, SWT is a life saver to me and my wife. Again a BIG THANK YOU!

Walt Dowd, Bella Vista, Arkansas

Just want to say kudos to Southwest Technologies for their outstanding wound care products. Recently I have been the home health case manager of a debilitated 83-year-old gentleman client with a stage 4 pressure ulcer to his sacrum. He had a fall and an ORIF, then was transferred to a facility that allowed this wound to occur over a five week timeframe. At the start of care, I found the pressure ulcer with only a gauze dressing taped over a large cavity that was whitish in color, very dry and a culture and sensitivity that showed MRSA. We had just had an in-service at the home health office from Vicki Drexler RN showing us how to use the Stimulen®, GoldDust® and ElastogelTM and explaining the effectiveness of these products with heavy bio loads. With MD approval, I used all three of these products with every other day dressing changes. At eight weeks of treatment, we have 75% reduction in wound size, minimal drainage, no pain, and a wound that continues to heal nicely . For me there's always a little anxiety when trying new products, but I can honestly say don't hesitate to try Southwest technology products, they are cost-efficient and wound effective. Your agency, the client and the MD will all thank you.

Thank you Vicki Drexler and Southwest Technology for your excellent products.

Sincerely,

Mary Lou Landis RN



Studies have shown that Stimulen® products produce longer Rete ridges which provide stronger skin integrality and tensile strength. In addition, studies have also shown that Stimulen® stimulates blood circulation especially in vascular compromised patients. Our Stimulen® collagen products are formulated in several different forms: Powder, gel (which is great for tunnels and cavities) and lotion which is combined with glycerine to enhance infection control and outcomes. The Stimulen® lotion is beneficial for topical therapies such as: cracked heels, lesions, rashes and similar skin conditions. The product line offers many choices and solutions for each patient's condition. We recommend the powder for moist and draining wounds and the gel for dryer and non-draining wounds.

- Hydrolyzed Type I and Type III Bovine Collagen
- Already in amino acid form so the body utilizes it efficiently
- Stimulates growth factors and angiogenesis
- Great for stalled, problem and chronic wounds
- Available in several forms
- Easy to use



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Furthermore, analysis of wound tissue showed up regulation of TGF-B, VEGF, vWF, and collagen type 1 expression. At day 21, MCG-treated ischemic wounds had a higher abundance of proliferating endothelial cells that formed mature vascular structures and increased blood flow to the wound. Fibroblast count was also markedly higher and tissue at the wound edges displayed higher abundance of mature collagen with increased collagen type I:III deposition. In short, avascular wounds treated with MCG were able to replicate the normal phases of healing. Research shows that they mounted a more robust inflammatory response that resolved in a timely manner, this was followed by an enhanced proliferative phase, angiogenic outcome and post wound tissue remodeling.

So often, game-changing research like this study, offered

hope for patients and a promise of better things to come. The frustration was that the product used in the research study would often not be available for human use for years to come. Ischemic patients need help immediately. In this case, the product that was researched is already available. The MCG studied was Stimulen® gel. The Stimulen® line of collagen products has been marketed for years. Clinicians have reported wonderful results along with their amazement that wounds that they had identified as palliative had healed - and healed very quickly with great cosmetic outcomes. Thanks to this research study, we can now explain the amazing results with science and move toward a stronger Evidence Based Practice model for challenging wounds.

Just like Route 66 provided a clear, easily accessible path for countless families in crisis during the Great Depression, this amazing study is doing the same for individuals and families dealing with wounds caused by PVD. The Stimulen® line of collagen products has been proven to heal avascular wounds when used as a primary dressing, but that is only the beginning. There is a synergy when Stimulen® is used in combination with other Southwest Technology products like ElastoGel[™] and/or Gold Dust[®]. Wound care clinicians are creative and a number have been reporting successes when Stimulen® is used in combination with advanced modalities such as NPWT and grafting. If you would like more information on the Stimulen® line of collagen products, please review the complete article, request additional documentation on the benefits of adding Stimulen® from SWT or request an inperson or virtual meeting with a member of the SWT team.

ASK THE EXPERT Featuring Edward Stout, PhD

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Does the research that has been done on Stimulen® prove your hypothesis?

I am very proud of the relationship that SWT has built with Dr. Chandan Sen's laboratory at The Ohio State University. In each of three, large research projects, his team has consistently exceeded my expectations. The first study showed that Stimulen® improved outcomes with wound healing. The second study built on that base and demonstrated one of the reasons why improved healing was seen. The addition of Stimulen® created a robust and yet controlled inflammatory cycle. By triggering normal healing, stagnant wounds can be "jump started". The latest research showed how Stimulen® actually creates the development of new, viable blood capillaries in a wound bed. This science explains the amazing results that clinicians have been reporting. The creation of angiogenesis - even in avascular wounds - is changing the practice of wound care. This knowledge is a new tool that clinicians can use when treating patients who do not have adequate circulation and they may not be a good candidate for a revascularization. By being able to transition chronic wounds to actively healing wounds and moving avascular wounds through the sequence of healing, we are truly making a difference and living our mission statement of "Treating the World Well"®