



**RenovaCare**  
CELL RENEWAL, NATURALLY.

# Spray-on stem cells for rapid healing.



**Mashable**

THE  
HUFFINGTON  
POST

**Forbes**

**Newsweek**



**Bloomberg**  
TELEVISION

RenovaCare products are under development and not available for sale in the United States.

# Grafting is Painful, Expensive and Leaves Scarring

## Inadequate Options for Burn Patients

### Skin Grafting is Current Standard-of-Care



Sheets of meshed skin for surgical stitching



Mesh scars in skin graft patient



### Painful & Lengthy Treatment Cycle

- › 200 year old method with last major breakthrough
- › 50 years ago
- › Large sheets of skin are surgically removed and re-stitched onto wound
- › Painful procedure that leaves extensive scarring
- › Grafted skin is not naturally pliable



### Expensive, Drug Dependent & Psychologically Damaging

- › Creates new wounds from donor sites and requires multiple surgeries
- › Requires wound management for donor and target sites, while in hospital
- › Extensive pain management and physical and psychological therapy
- › Life-long physical and emotional scarring

# Wounds Becoming More Common

***The SkinGun™ and CellMist™ System*** are a new alternative for patients suffering from burns, chronic wounds, acute wounds and scars.

New Treatment Urgently Needed

***In the US*** alone, this ***\$45 billion market*** is greater than spending on high-blood pressure management, cholesterol treatments and back pain therapeutics.

## A Rising Scourge

Why improvements in wound healing are so important

- ◆ **An estimated \$25 billion** is spent annually on treating chronic wounds on patients in the U.S.
- ◆ **6.5 million people** are affected by chronic wounds.
- ◆ **Wounds are associated with diabetes**, clogging of the arteries, vein diseases, neurological problems, rheumatologic illnesses, inflammation of blood vessels and other medical difficulties.
- ◆ **Up to 25% of all diabetics** will develop a diabetic foot ulcer or wound.
- ◆ **Wound infections are the most expensive** complications following surgery and are a major source of bacteria that drive infection rates in hospitals.
- ◆ **Wounds will become more common** with an aging population and increasing prevalence of chronic disease.
- ◆ **Obese patients are at greater risk** of wounds because poor nutrition and circulation impede healing and skin folds increase infection risk.

Sources: Johns Hopkins School of Medicine; Wound Repair and Regeneration ; WSJ reporting  
The Wall Street Journal

# Breakthrough Technology

## The SkinGun™ and CellMist™ System



### Donor Skin Postage Stamp-Sized

- › Small donor skin sample taken under local anesthetic
- › 90 minutes to collect regenerative autologous stem cells
- › Water-based suspension of cells sprayed onto wound



### Natural Skin Growth

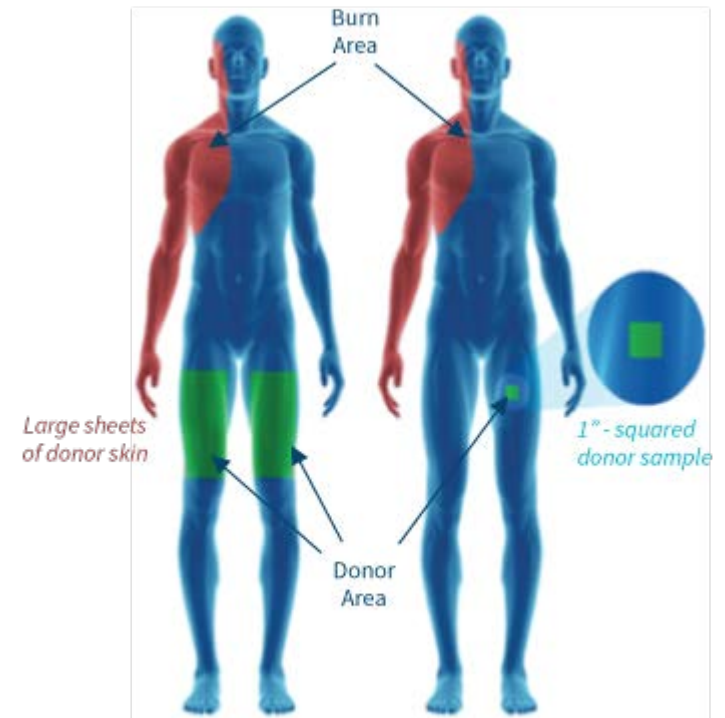
- › Small donor skin sample taken under local anesthetic
- › 90 minutes to collect regenerative autologous stem cells
- › Water-based suspension of cells sprayed onto wound



### Quick Healing & Reduced Hospitalization/Follow-On Visits

4 days for re-epithelialization and patient discharge  
versus weeks/months for skin graft patients

### Skin Grafting vs CellMist™



# From Trauma to Treatment in Minutes



Early patient after treatment for:  
**severe burns to face, neck, shoulder, back, arms and hand**

“The doctor said that I might be a candidate for this new procedure, which is the spray gun, and asked me if I would be interested.”

“They did it on a Friday, and my follow-up was that Monday, and the burn unit said it was healed, completely healed.”

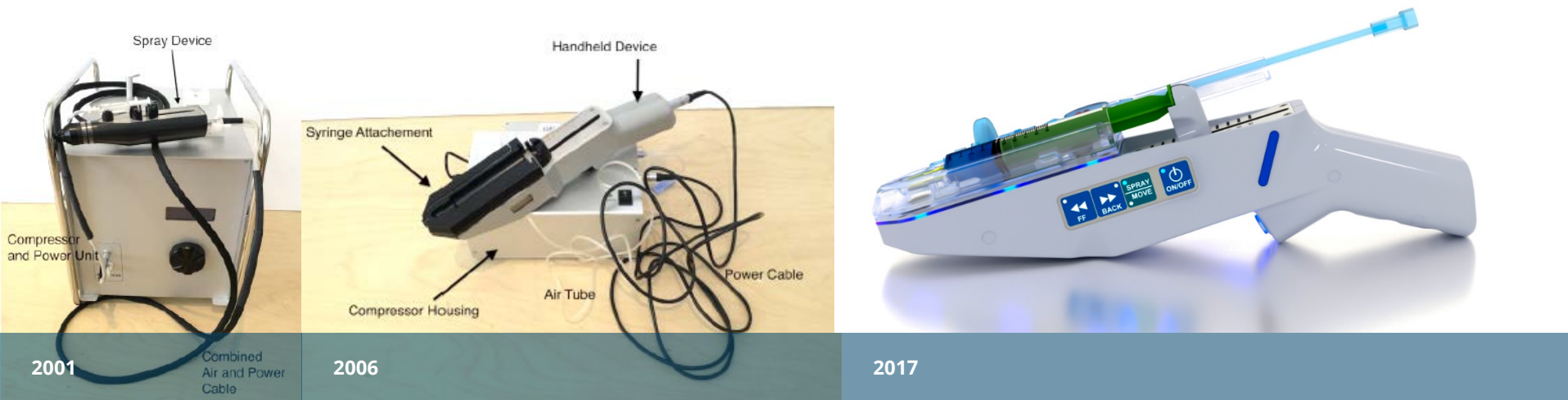
**Officer Matt Uram**  
Pennsylvania State Trooper

[View National Geographic Video](#)



# Dedicated Research and Ongoing Development

## The SkinGun™ and CellMist™ System



**16**

Years of R&D

**\$10M+**

invested

**70+**  
**Patients**

treated in U.S.  
and Germany

**Peer  
Reviewed**

publications

Growing

**IP**

portfolio

Clear

**FDA**

pathway

Clear

**Commercialization**

strategy

# Gentle, Practical, Promising.

## Severe Second-Degree Burns

ee

*"There was **no evidence of hypertrophic scarring** throughout the prior burn area, and his only functional impairment, at this point, was due to his wrist injury."*

*Study: 43 year old male in gasoline explosion;  
6 burn etiologies*



Before



After



### Early study of 19 patients with deep dermal burns to the face and neck (complex three-dimensional surfaces):

Researchers abandoned skin grafting and adopted RenovaCare's founding technology as their standard of care.

*Study: 19 patients with deep dermal burns;  
Annals of Plastic Surgery*

*"We refuse to perform a prospective randomized study with groups in which traditional skin grafting and/or wound healing are still applied for the therapy for deep dermal burns due to the excellent results in our study.*

The method of CEA *spray application has become our standard of care* for these indications.

The *faster wound closure, the promotion of spontaneous wound healing by keratinocyte application, as well as the preservation of donor sites are further advantages* of the method."

# Gentle, Practical, Promising.

## SkinGun™ ultra-gently sprays delicate stem cells to wound

*SkinGun achieves over 97% cell viability*

*Survival of delicate stem cells when spraying is critical to wound treatment*

*SkinGun is comparable to pipetting, the 'gold standard' for gentle handling and deposition of cells*

*Study: Berlin-Brandenburg Center for Regenerative Therapies; Charité Berlin*



*"...all of the areas treated with cellspray grafting were noted as **completely healed** and reepithelialized.*

*There was **no evidence of hypertrophic scars or wound contracture**, and the patient had a functional range of motion in all extremities."*

*Study: 34 year old male with electrical burn; 6 burn etiologies*



# Gentle, Practical, Promising.

## No need for large donor skin samples

1" of donor skin treated over 100" of body surface area (1:100 ratio vs 1:6 for grafting)

Mesh grafting requires 16.5" of donor skin to cover the same area that we do with 1"

*Study: 21 burn patients sprayed (Pittsburgh, PA)*



Before



After

*Initially treated with Bacitracin and presented at trauma center the day after, when his wounds appeared worse*

*Post cell spray: "A 100% re-epithelialization was noted and the **patient was discharged that day...**"*

*Follow-ups: "... noted to have full range of motion..."  
"He was noted to have an **excellent aesthetic outcome.**"*

*Study: 43 year old male with hot water scalding; 6 burn etiologies*

# Growing Media Coverage



*"Experimental SkinGun heals burns using stem cells."*

THE  
HUFFINGTON  
POST

*"Science fiction just became science fact."*

practical  
dermatology

**Front-cover feature:** *"Innovations to Come in 2017"*

*"A primary benefit of the process is that it avoids the need for skin grafting, which may not take, could produce scarring, and be slow to heal."*

Pittsburgh Post-Gazette

*"Treatments with laboratory-grown sheets of cells take weeks to prepare, and some patients die before they're able to get this intervention. Preparation for the SkinGun procedure requires two hours or less."*

Newsweek

*"Spray-On Skin: 'Miracle' Stem Cell Treatment Heals Burns Without Scarring"*

BUSINESS  
INSIDER

*"This gun sprays stem cells on burn victims to regrow skin without scars."*

# Experienced Management



THOMAS BOLD, MBA, DIPL-KFM  
President & CEO, CFO



KENNETH KIRKLAND, MS, PHD  
Director



JOSEPH SIERCHIO, ESQ  
Director



PATSY TRISLER, JD, RAC  
VP, Regulatory & Clinical  
Affairs



ROGER ESTEBAN-VIVES, PHD  
Director of Cell Sciences



DREW DANIELSON  
Director of Operations



MICHAEL M. BARCH  
Advisor



RICHARD SIMMAN, MD  
Advisor



STEVEN Q. WANG, MD  
Advisor



RODNEY SPARKS, JD., PHD  
Advisor



JORG GERLACH, MD, PHD  
Advisor

*Mr. Thomas Bold, President and CEO, has over fifteen years of experience in medical device manufacturing, stem cell culture technologies and regenerative medicine.*

***Supporting Mr. Bold is a dedicated and experienced team with expertise in:***

- › Wound care
- › Reconstructive (burn) surgery
- › Dermatology surgery
- › C-level healthcare management
- › FDA and regulatory approvals
- › Intellectual property
- › Technology in/out-licensing
- › Commercial law
- › Regenerative medicine
- › Bioengineering
- › Stem cell research

# Forward-Looking Statements

---



This presentation contains forward-looking statements, which involve assumptions and describe our future plans, strategies, and expectations. These statements have not been evaluated by the US FDA and our products are not approved for sales in the United States.

---

These statements are expressed in good faith and based upon our current assumptions, expectations and projections, but there can be no assurance that these expectations will be achieved or accomplished.

---

Such forward-looking statements include statements regarding, among other things: (a) the potential markets for our products or technologies, our potential profitability and cash flows, (b) our growth strategies, (c) expectations from our ongoing sponsored research and development activities, (d) anticipated trends in the industries in which our product or technologies would be utilized, (e) our future financing plans, and (f) our anticipated needs for working capital.

---

Although forward-looking statements in this presentation reflect the good faith judgment of our management, forward-looking statements are inherently subject to known and unknown risks and uncertainties. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this presentation will in fact occur. You are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this presentation.

---