



## **Fibrotix:** Significant Reduction in Skin Scar Area, Fibrosis, Hyperpigmentation and Improved Appearance

### Challenge

- Wound healing is complex: excessive inflammation, angiogenesis and dermal fibroblast function significantly contribute to scarring; additionally, scar hyperpigmentation negatively impacts scar quality
- Scars cause serious cosmetic and functional problems that can be emotionally and physically debilitating and place heavy financial burdens on healthcare systems
- There are currently no clinically tested or licensed interventions/pharmaceuticals available to reduce scarring or scar hyperpigmentation
- **Reduces skin scar area and hyperpigmentation post wound in vivo**
- **Uses Salbutamol a safe, widely used, approved therapeutic**
- **Strong intellectual property position**

### Solution

- Salbutamol (Sal), delivered topically, ameliorates excess deposition of scar tissue and reduces hyperpigmentation post trauma, significantly improving scar appearance

# Fibrotix: Significant Reduction in Skin Scar Area, Fibrosis, Hyperpigmentation and Improved Appearance

## Macroscopic scar assessment at 56 days post wounding

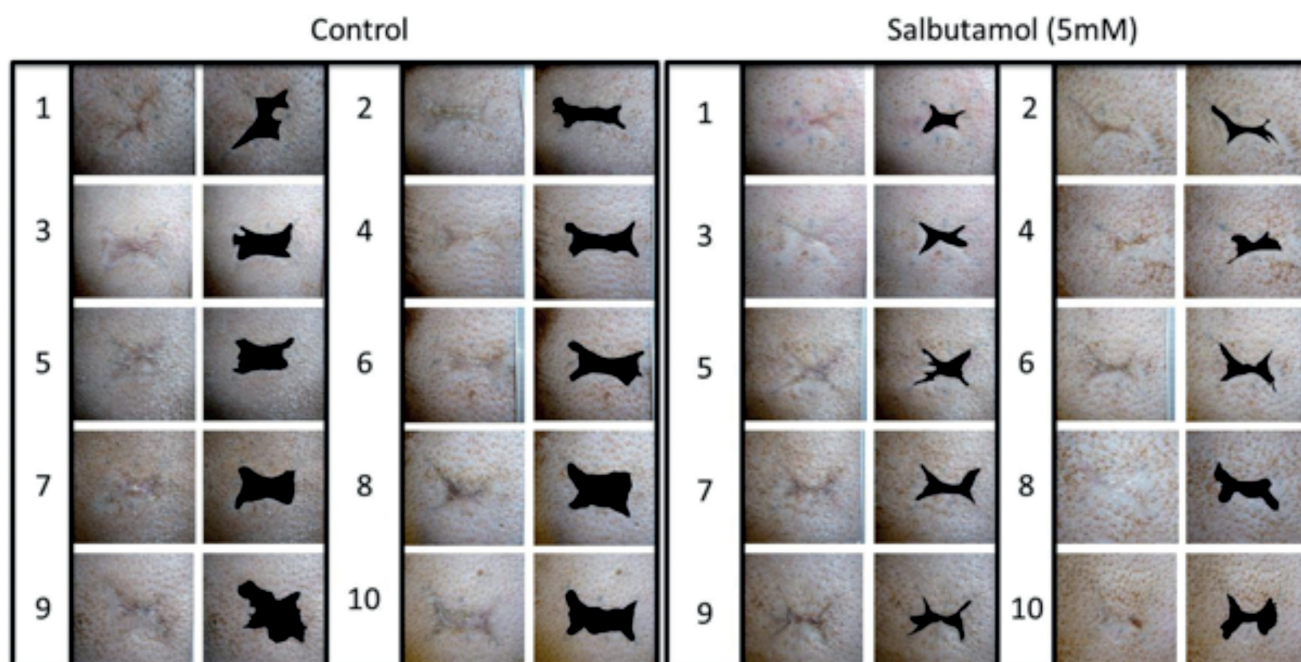


figure 1

Using a number of *in vitro* and *in vivo* models we have demonstrated that Sal-induced beta 2 adrenoceptor activation can restrain inflammation, angiogenesis and dermal fibroblast differentiation, function and pro-fibrotic signature via a number of mechanisms.

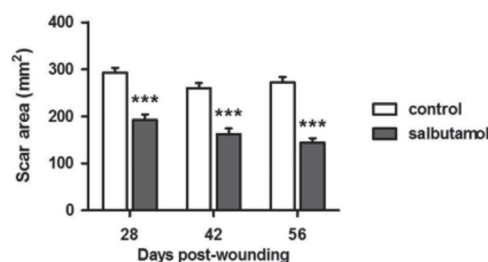
*In vivo* proof-of-principle studies were performed in the Red Duroc pig and demonstrated Sal treatment reduced scar area by almost 50%, 56 days post-wounding. Hyperpigmentation, colour match, sheen, height, texture and pliability were also significantly improved (figure 1).

Immunostaining demonstrated a significant early reduction in both macrophage infiltration and angiogenesis. Sal-treated wounds were also significantly less contracted after 14 days, indicating reduced dermal fibroblast function. Indeed, there was an approximate 50% reduction in immunostaining for a number of pro-fibrotic markers, in the wound bed of Sal-treated scars.

### Benefits

- Topical salbutamol significantly improved scarring by altering inflammation, angiogenesis and dermal fibroblast function in porcine skin wounds
- Could have significant potential to reduce both physiological and pathophysiological human skin scarring

Salbutamol reduces scar area at 28, 42 and 56 days post wounding



### Market

100 million patients in the developed world heal with a scar every year as a result of elective procedures and trauma.

### IP status

Patent applications are under examination in EU (EP2271326 A1) and US (US2011201691 A) and a recent GB filing has strengthened the protection.

**Is your company supplying medical solutions and looking for an investment?**

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