Scarless Wound Healing with Intradermal IL-10 Application

Brief Description of Technology
Therapeutic that uses a longer acting form of IL-10 to assist in scarless wound healing.

Technology ID
2013-0120

Technology Overview
IL-10 delivery to cutaneous wounds using a hydrogel based delivery system to induce regenerative tissue repair. Although it is well known that IL-10 reduces scar formation, using a hydrogel instead of a lentivirus to deliver IL-10 to the site has not been used before. Our experience is with a high molecular hyaluronan (HA) based system and we are developing a PEG maleimide (PEG-mal) based delivery method. Both constructs use a heparin sulfate binding moiety to allow prolonged cytokine release, for which the kinetic release studies are completed. The hydrogel allows the bolus dose and the longer term dosing profile of IL-10, resulting in superior scarless wound healing as opposed to other delivery methods.

Applications
• Wound Healing

Advantages
• Better dosing profile of IL-10 and longer acting in situ

Market Overview
According to the American Society of Plastic Surgeons, there were approximately 171,000 scar revision surgeries conducted in the U.S. in 2012 alone. The initial application will be anytime a surgical incision is made, which is at least 50 million patients per year. Additionally, there are approximately 11 million keloids treated every year.

Investigator Overview
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