

Technology Description

Cellumina is developing a novel scaffold for skin cell growth with applications in wound healing. The scaffold is derived from the anodization of aluminium, resulting in a reproducible membrane with uniformly organized pores and surface topography. Cellumina's technology was developed in collaboration with partners Curtin University, McComb Foundation and Murdoch University. The scaffold has the potential to be developed for the following applications in this market:

- 1) Bandage, using the scaffold for wound dressing for small burns, injuries and surgical incisions.
- 2) Cell culturing device, replacing the traditional animal "feeder" layers for the growth of skin cells
- 3) Skin grafting device, involving the growth of a patient's own skin cells and the delivery of these cells integrated into the scaffold.

Value Proposition and Competitive Advantages

The total advanced wound care market is projected to reach \$5.4 billion by 2010. The prime goal of all wound treatment is faster wound healing which typically leads to less scarring and improved cosmetic appearance. The Cellumina scaffold has been shown in vitro to be effective in skin cell attachment and skin cell growth without the requirement of animal products. The next development phase will be to test if this scaffold also promotes skin regrowth on a typical wound such as burns with improved healing times to traditional dressings.

Current Status/ Next Steps

Cellumina has investment from the Curtin Pre-seed Commercialisation Fund and the Stone Ridge Ventures- Murdoch Westchem Enterprise Partnership Pre-seed Fund. The technology is protected by a PCT patent application which will enter national phase in the major markets US and Europe mid-2008. Cellumina will attempt to position its wound healing technology in a segment of this market which is high-value and that is competitive for a start-up company.

Funding Requirements

Cellumina is seeking further funding to develop its flagship scaffold and associated product lines.

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