Point. Aim. Fuse

Enabling Hemostasis and Sutureless Surgery

Yasmin Wadia, M.D.
Founder and CEO
Company Overview

- Incorporated: 2004 Delaware C-Corp
- Pre-revenue
- Business Model: Vertically Integrated
- Razor, Razor-Blade: Direct sales strategy

LTW is a Platform Surgical Device
Market size for one application
Liver surgery is $650 M
The Laser Tissue Welding System: A surgical device to join and seal tissues to stop bleeding and fluid leaks without compression, sutures, blood products or thermal ablation.

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Combination Product (Device)

Laser Tissue Welding System

- Albumin-Indocyanine Solder: Albu-Green™ (Consumable)
- Denatured Albumin Scaffold: D-Albumin™ (Consumable)
- 810nm Semiconductor Diode Laser (Hardware)
Technology Basics: Fusion

Liquid Albumin with Indocyanine green dye Solder

Solid Transparent Albumin Scaffold

Solid scaffold which is welded to tissues

Liquid Albumin with Indocyanine green dye Solder
HISTOLOGY
Raw Surface Repair

Acute Study- 3 hrs

Chronic Study
Two Weeks

Chronic Study
Four Weeks

*All 11 chronic animals healed without complicating infection, hemorrhage or bile leakage

*Yasmin Wadia, M.D., Hua Xie, M.D. Michio Kajitani, M.D.
Sutureless Liver Repair and Hemorrhage Control Using Laser-Mediated Fusion of Human Albumin as a Solder.
J Trauma. 2001;51:51-59 (http://www.lasertissuewelding.com/media/docs/Laser_welding_of_the_liver.pdf)
Value Proposition: New Paradigm
An enhanced surgical capability

• **Saves lives**: Quickly repairs and controls of hemorrhage in patients who cannot clot
• **Blood conservation**: Reduced transfusion requirements
• **Salvages organs and tissues**: Repairs without burning
• **Enabling curative surgical resection**: Does not ablate tumors. Provides tissue diagnosis of tumor free margins.
• **Shorting operating time**: Quick and accurate
• **Faster Healing and Shorter hospital stay**: Due to decreased tissue trauma
• **Sterilizes contaminated wounds of drug-resistant super bugs** Methicillin-Resistant *Staphylococcus aureus* (MRSA)
• **Increases donor pool for liver transplantation**: Simplifying split liver transplants
• **Fibro-optic capable**: Laparoscopic & robotic
Market Segments for Liver Surgery

• Market size: 624,464 patients
  – Split Liver Transplantation
  – Primary & Metastatic Tumors
  – Trauma

• 5% Market penetration in 1\textsuperscript{st} yr by 2011
  31,223 patients

• 30\% year over year growth
Technology Readiness Level: TRL 8

- IP protection
- Preclinical Animal safety
- Clean-room facility
- In-house manufacturing
- Submission of 510k

2006 - 2008

2009 - 2011

- Safety & Efficacy Clinical Trial
- Pilot Scale up
- Marketing

GMP

TRL-8

Direct sales
Strategic alliances

Actual system completed and 'flight qualified' through test and demonstration
Hard Assets: Prototype Manufacturing Facility
## Competing Technologies

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<th>LIVER Applications</th>
<th>Haemostatic patches &amp; glues</th>
<th>Radiofrequency Ablation (RITA)</th>
<th>TissueLink &amp; Argon Beam</th>
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<td>Trauma</td>
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<tr>
<th>Future Applications</th>
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<td>Vascular Surgery</td>
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LTW Team

R Patrick Wood, M.D.
Chief Surgeon, Liver Institute
St. Luke's Episcopal Hospital

Yasmin Wadia, M.D.
Chairman & CEO
Founder Inventor

Milton V Marshall, PhD.
Director of QA and QC

Harsh Singh
President & CFO
Serial entrepreneur
COLLABORATORS

IRIDEX

St. Luke's Episcopal Hospital
Advisory Board

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Milton V Marshall, PhD, DABT
Director of Quality Assurance & compliance, Dept of Radiology University of Texas

Deborah Mansfield, MS, MBA
Director, Life Sciences Program Houston Technology Center
Return on Investment

Razor, Razor-Blade Model

Hardware at-cost:
- 810nm Laser
- Laser wand (optical bundle)
- Stainless Steel LTW hand-piece

Disposables charged:
- Albu-Green™ Solder
- D-Albumin Scaffold

Profit margin: 200%
Break Even point is in the 1st year
Financing so far

- 2006-2008: Re-Seed, Pre-revenue
- Prototype Manufacturing/ sterility/shelf life validation:

  Founders: $1,084,000
  Federal: SBIR I: $161,789
  State: Texas ETF: $160,000

Total: $1,405,789
Investment

Seeking $5M for Series A preferred

• Pilot scale-up
• Clinical Trials
• Aggressive Marketing

Exit Strategy: Acquisition
Key Contact

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