

# Bioscan Technologies

## IVUS on a Coronary Guidewire

Stephen M. Fry, Ph.D. - CEO



ICI meeting 2009  
Innovations in Cardiovascular Interventions



# Disclosures

**I have the following financial relationships to disclose: Bioscan Technologies, Ltd.**

**Type of relation: Employment (CEO)**

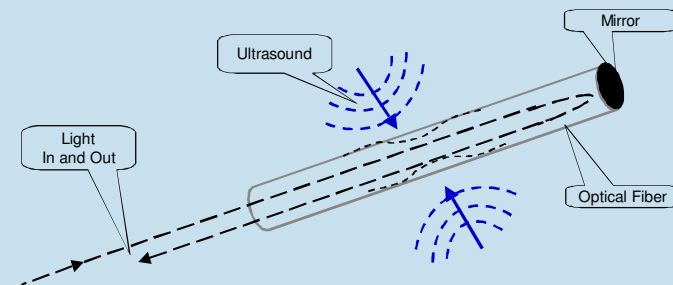
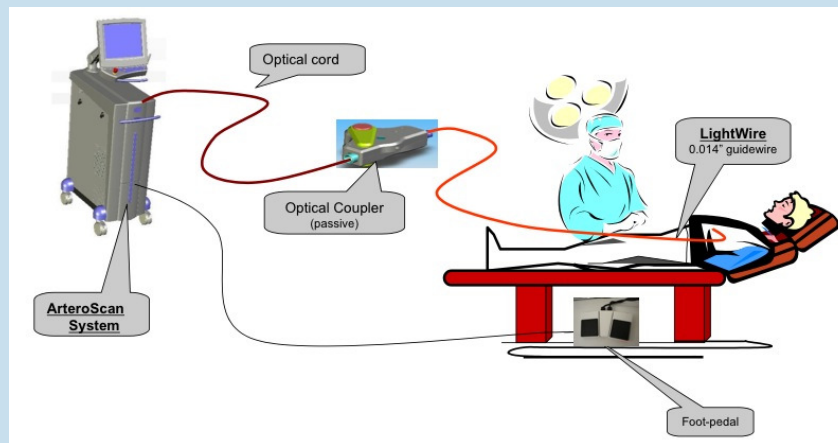
# Bioscan Overview

- **Technology: “IVUS on a Wire”**
  - 0.014” intravascular ultrasound guidewire for coronary and peripheral procedures
  - Side-looking operation for stent sizing and apposition
  - Forward-looking operation for chronic total occlusions
  - Arterial segment imaging without pullback
  - Real-time monitoring of stent expansion
- **1st Product: LightWire™ and ArteroScan™ System**
  - Low-cost stent sizing and apposition imaging guidewire
- **Status: Completing preparations for First-in-Man & FDA/CE submissions**
  - Animal studies demonstrated safety and accuracy of arterial sizing
  - FDA has agreed that a 510(k) clearance is all that is required
  - IRB in Israel has approved first human studies (pending submission of testing data)
  - Bioscan is currently conducting biomaterials, mechanical, and aging studies
  - 510(k) submission planned for early October 2009
  - CE-Mark and ISO 13485 certification expected in December 2009

# Bioscan Technology Platform

## Opto-Acoustic Fiberoptic Ultrasound

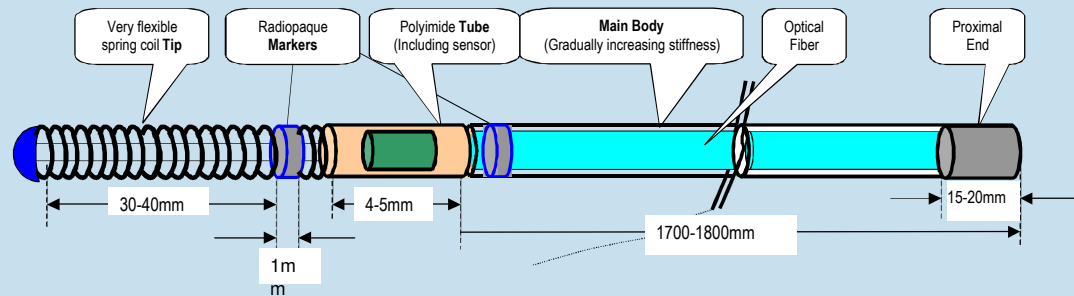
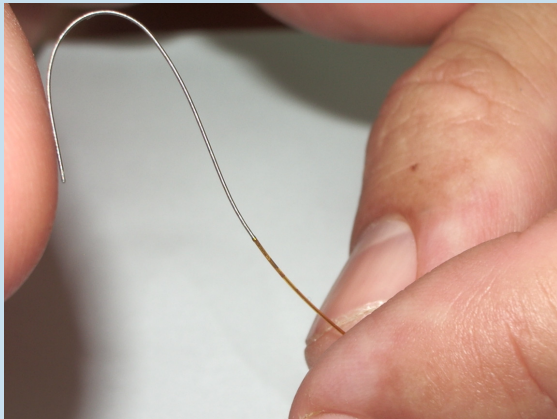
- Allows miniaturization, and enables packaging into a standard coronary guidewire
- Produces wide spectrum signal for both high resolution and deep imaging
- Low cost implementation compared to other IVUS products
- Immune to RF noise and MRI compatible
- Relatively easy to implement forward-looking imaging guidewire



# LightWire

## 0.014" Coronary Guidewire for Stent Sizing and Confirmation of Apposition

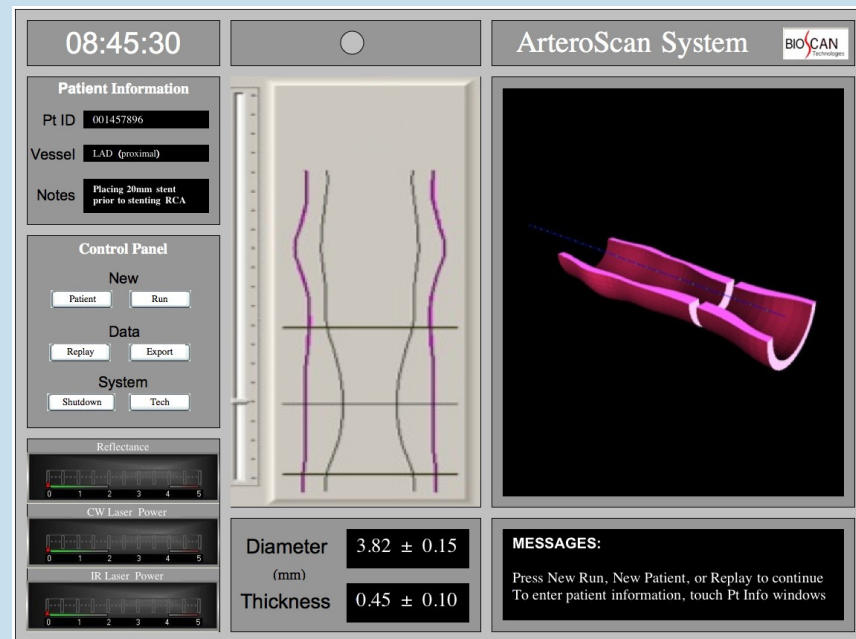
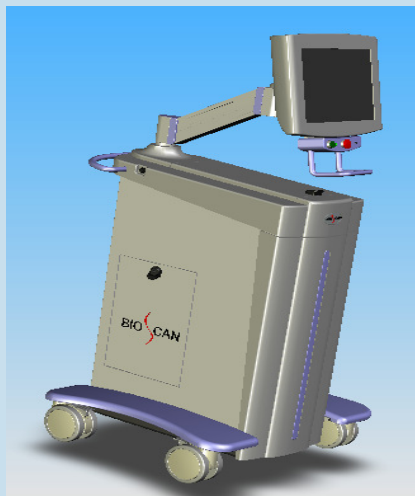
- Behaves like a normal working guidewire - good acceptance by cardiologists
- Can be left in place during the procedure
- Low cost (half the ASP of IVUS catheters) way to guide implantation of DES
- Simple to use and easy to interpret



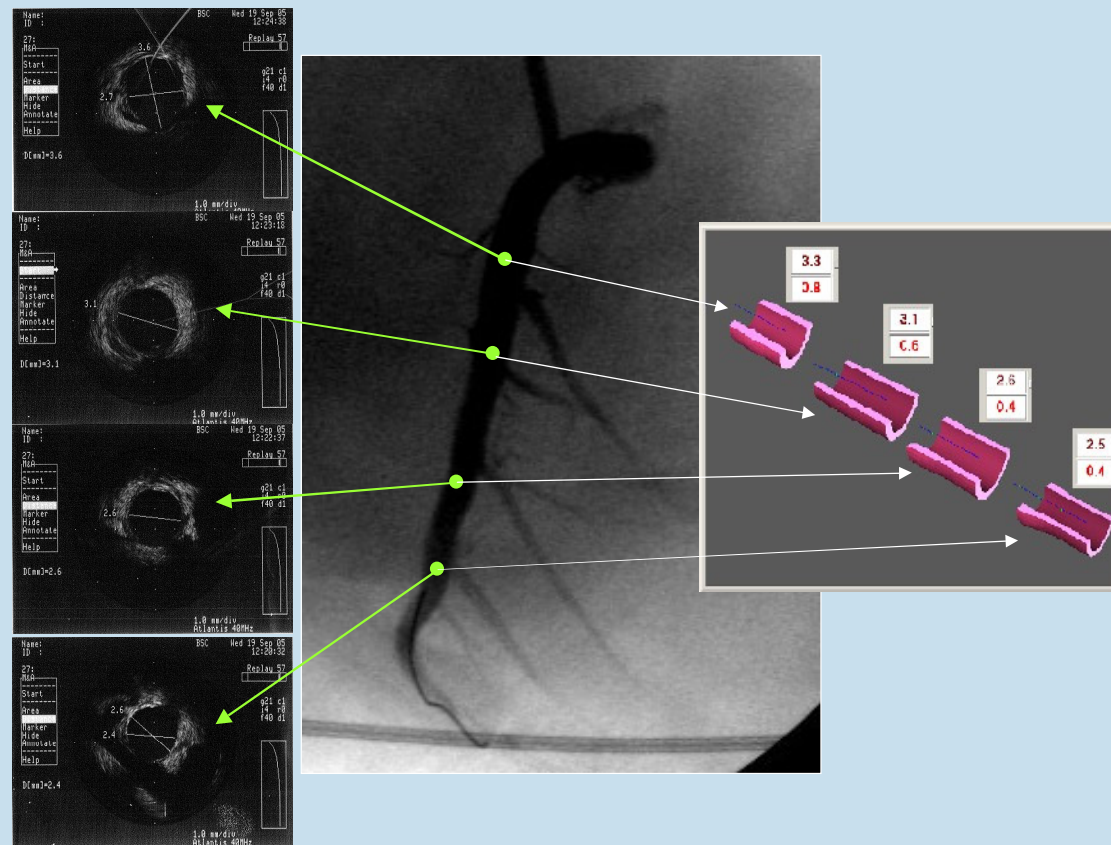
# ArteroScan System

## Compact System Console

- Laser transmission and detection of ultrasound
- Provides easy-to-interpret display of artery and stent
- Low-cost system (\$50-60K)



# LightWire vs IVUS - Porcine

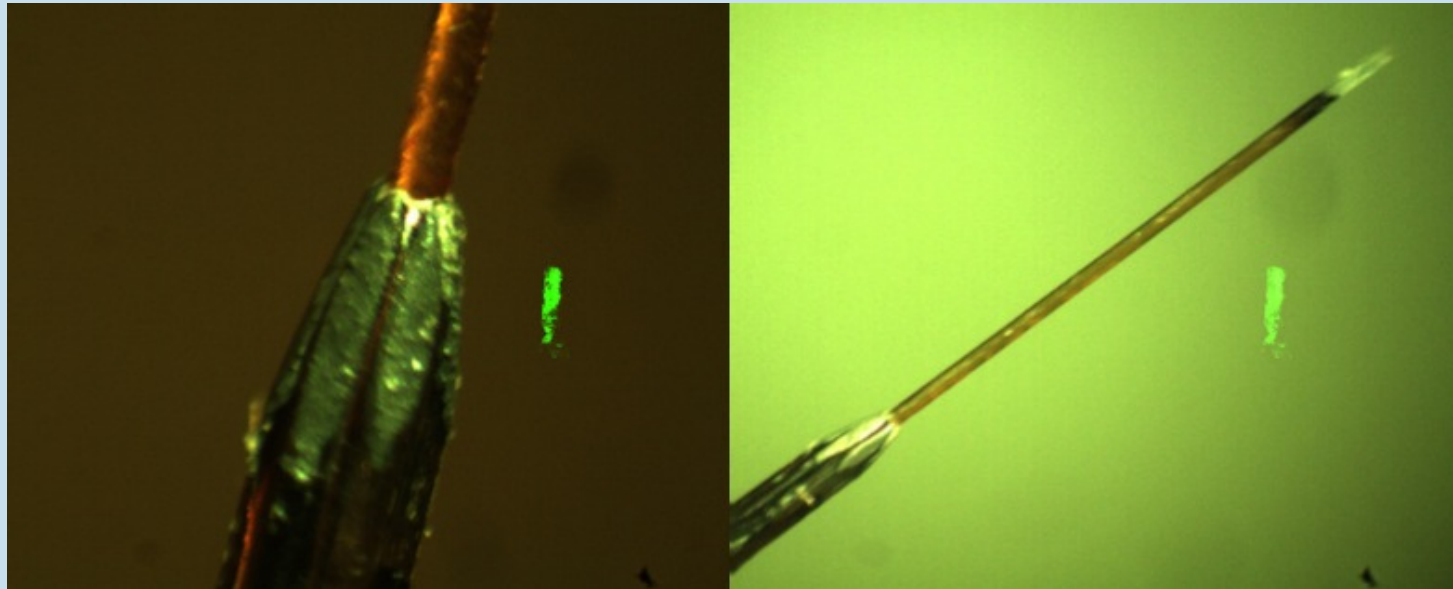


# Future Potential of Technology

- **Multiple fiber probe for increased radial resolution**
- **Forward-looking ultrasonic imaging probe**
- **Dual/Triple-sensor probe enabling the interventional cardiologist to select where measurements are being made**
- **Multiple-sensor probe with real-time imaging of an arterial segment without requiring a pullback**

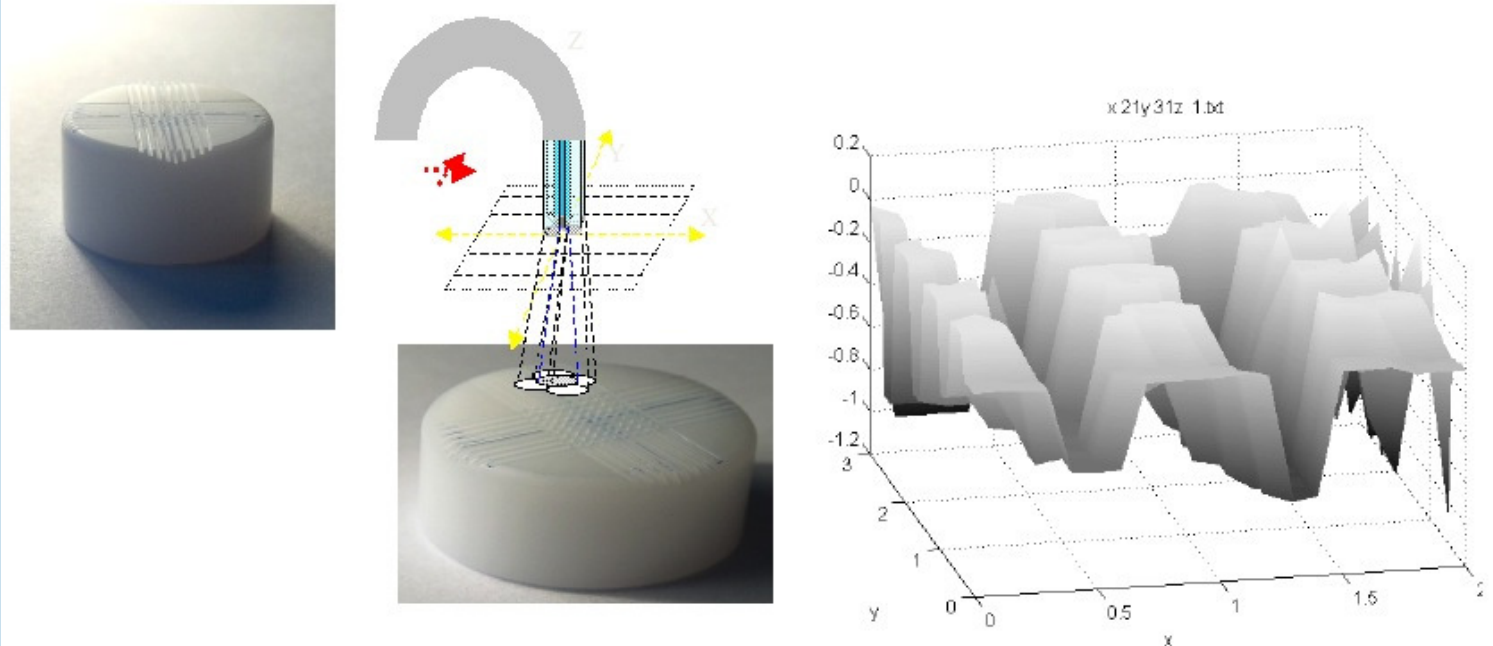
# Multi-Fiber LightWire

## *6-Fiber Probe*



# Forward-Looking LightWire

## Forward looking imaging feasibility



# Bioscan: “IVUS on a Wire”

- We are a strong, highly committed, professional team
- New opportunity to implement evidence-based approach to minimize stent complications
- We represent a true technological breakthrough
- The clinical application is well-defined and its efficacy and safety are proven and established
- We have a sound business model
- Our product has a short time-to-market
- We have identified additional exciting applications of the technology

