Surgical Kit for Restoring Vision in Age-Related Macular Degeneration Patients

Jennifer H. Moore
Licensing Associate

Emory OTT Breakfast Club
November 20, 2008
Opportunity

Surgical kit that enables a **one-time** surgical procedure that **restores vision** in patients suffering from advanced **wet or dry** age-related macular degeneration.

- 15M patients in US; 30-50M patients WW
- Leading cause of blindness in people over age 50
Competitive Advantages

Our technology:

- **Restores vision**
  - therapies to date designed to halt or delay further progression of the disease

- **Treatment for both advanced dry and wet AMD**
  - advanced dry AMD patients have no approved treatment options

- **One-time surgical treatment**
  - no repeat treatment needed

- **Cost-effective**
  - current standard for wet AMD is on-going treatment (Lucentis®), current yearly cost is $23k
Addressable US Market

- **217,000** new *wet* AMD patients annually
- **34,000** new severe *dry* AMD patients annually

- **26%** of market
  - 15% - Lucentis® ineffective
  - 4% - risk of stroke
  - 8% - glaucoma/diabetic ret.

- **50%** of market
  - no approved dry AMD treatments

73,420 pts x 1.08 kits/pt = ~ 80,000 kits/year

(Price kits to compete with Lucentis® - $23k/year)
Surgical Instrumentation

Timothy Olsen, M.D. (Lead Inventor)
- F. Phinizy Calhoun Sr. Professor of Ophthalmology, Emory University
- Chair of the Dept. of Ophthalmology
- Director, Emory Eye Center, Section of Vitreoretinal Surgery & Disease
**Surgical Procedure**

Human feasibility studies prove surgical approach is effective.

- 40/42 wet AMD eyes showed transplant vascularized
- 5/7 dry AMD eyes showed transplant vascularized and 2/3 patients unable to read pre-surgery able to read post-surgery
Intellectual Property

• **Surgical Support Structure**
  – Pending US Application No. 11/502,603
    • Filed 8/9/06
    • Claims address:
      – system for translocating a multi-layer patch of eye tissue
      – methods for translocating a multi-layer patch of eye tissue
  – Corresponding international filings in Europe and Australia
Development Plan

• Complete prototype (RF forceps) development (3-6 months)
• Pre-clinical in vivo efficacy studies (Year 1-2)
  – Pig surgeries – technique/survival/function
  – Primate surgeries – survival/function
• Phase 1 Clinical Trial (Year 3)
  – 10 patients (5 wet AMD, 5 dry AMD)
• Phase II/III Clinical Trials (Year 4-6)
  – 200 patients