



RetinaSense

Retinal Device for Increased Surgical Precision

RetinaSense is an innovative precision retinal device for sensing of active retinal tissue and is a breakthrough in enhancing outcomes for all vitreoretinal surgeries. Vitreoretinal surgery is an invasive microsurgical ocular procedure utilized to correct problems at or near the back of the eye. It is particularly useful for correcting retinal disorders, such as removal of various types of potentially vision-impairing or destructive epiretinal membranes (ERMs). In this type of ophthalmic surgery, surgeons access the back of the eye through standard procedures and utilize various instruments, for example, a “retinal rake”, to remove these membrane(s) by scraping or scouring the surface of the retina.

RetinaSense will enable surgical instruments to provide a secondary signal to surgeons to distinguish between touching healthy retinal eye tissue and tissue that needs to be removed.

Technology

The RetinaSense medical device is capable of enhancing all disposable retinal surgical instruments to provide an audible or visible signal to a surgeon that more clearly identifies which type of tissue is in contact with the instrument being used. It consists of a handheld, battery operated retinal rake (or other retinal surgical instrument) having two electrodes, where at least one electrode is the modified retinal rake. Upon contact with different optical tissues the electrodes detect varying impedances which are translated by onboard circuitry into various signals that indicate what type of tissue, fluid and structure is in contact with the retinal rake.

The key advantage of this device will be increased surgical precision by sounding a tone when viable retina tissue is being touched, maximizing effectiveness of surgery and reducing risk of retinal tear compared to conventional methods. This will minimize complications from surgery.

Market Potential

There are more than 350,000 vitrectomys performed each year. Every vitrectomy could use multiple disposable retinal instruments that would benefit from the device indicated above. This would reflect a total U.S. market of approximately \$70 million and a global market of more than \$200 million.

Strategy

RetinaSense plans to have manufacturing-ready prototypes completed in 18 months by executing a very well defined product development program. The management team and MDI Partners are especially well suited to run this program and deliver key milestones. They will work with a renowned medical device design team to create concept renderings, build Alpha Prototypes followed by design revisions and Beta Prototypes. They will complete verification testing and pre-clinical testing and validation, file for FDA 510(k) clearance while continuing to file for additional patents.



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Strategy (cont.)

The RetinaSense device will have the strong support of the key opinion leaders in retinal surgery, led by a strong Scientific Advisory Board. RetinaSense would then be a very attractive acquisition target for some of the major retina surgical instrument manufacturers. The ultimate goal will be to sell the company in 18-24 months.

Management Team

Navroze S. Mehta – President & CEO

Mr. Mehta has 15 years of experience managing life science and technology companies including significant domain experience in Ophthalmology. He co-founded NovaVision Inc, maker of a neuro-ophthalmology medical device that restores vision in stroke and traumatic brain injury patients. He raised more than \$40 million in venture financing including an investment from Johnson and Johnson. Mehta led the company as president and CEO through the product development process and the FDA 510(k) application and clearance. He was also involved in running multiple clinical trials with leading retinal surgeons to study the impact on Macular Degeneration. Prior to NovaVision, Mehta co-founded Dermdex/Skinstore, a successful dermatology focused life science company. He raised \$2 million in angel funding for Dermdex. Mehta received his MBA from Syracuse University and is an active member of Young President Organization (YPO). He served as the past chairman of the Americas Gateway Chapter in Miami.

Sharesh Kaushal, M.D., Ph.D. – Chief Medical Officer

Dr. Kaushal is chairman of the Department of Ophthalmology at the University of Massachusetts. He was previously an assistant professor of ophthalmology at the University of Florida, the director at the University of Florida Retina Center, and an adjunct faculty member at the University of Florida Drug Discovery Center. He is board certified in ophthalmology. Kaushal's clinical and surgical interests include diabetic retinopathy, age-related macular degeneration, inherited retinal disease, pediatric vitreoretinal disorders, inflammatory retina diseases and macular disorders. He received his M.D. from the Johns Hopkins University of Medicine and a Ph.D. from the Massachusetts Institute of Technology.

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