

# Lexitek Inc.

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U. S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
National Institutes of Health



National Institutes of Health Commercialization Assistance Program  
(NIH-CAP)

## Company Profile

**Industry Sector:** Medical Devices, Optical Instrumentation

**Company Overview:** Lexitek is an R&D company developing innovative optical devices and technologies for sophisticated applications. Lexitek is a leader in development of scintillating screen-based high-resolution imaging radiation detectors. An award-winning Lexitek-designed system is in daily use performing non-destructive testing. Using its Near-Index-Match™ technology, Lexitek is the world leader in providing laboratory testing equipment for adaptive optics systems.

**Target Market(s):** Our initial target market is hospital based proton and particle therapy centers. Currently undergoing exponential growth, these centers take advantage of the superior ability of charged particles to conform the radiation dose to the tumor, thereby sparing healthy tissue compared to conventional X-ray radiotherapy. Future markets include QA systems for IMRT.

## Key Value Drivers

**Technology\*:** Lexitek's patented High-Resolution Proton Beam Monitor enables safe and accurate delivery of scanning particle beam radiotherapy. The scintillator-based technology tracks beam size, position, and intensity with microsecond time resolution, submillimeter spatial resolution, and with 1-2% accuracy required for real-time monitoring of therapeutic particle beams.

**Competitive Advantage:** Lexitek's technology has higher spatial and temporal resolution than any other radiation detector. Compared to other approaches, the thin scintillating screen is minimally invasive to the therapy beam. Unlike other beam monitors, no active components are placed in the beam – the scintillator is robust and if it does exhibit radiation damage, is easily and inexpensively replaced.

**Plan & Strategy:** Lexitek is seeking a strategic partner for completing integration, obtaining regulatory approval, and deploying our products.

\*Technology funded by the *National Cancer Institute* and being commercialized under the NIH-CAP

## Management

### Leadership:

Steven M. Ebstein, Ph. D., President  
B. David Sandberg, Corporate Counsel

### Scientific Advisory Board:

Jakob Maya, Ph. D.

## Product Pipeline

	2009	2010	2011
QA Detector for Scanning Beam Therapy	Beta	Market Ready	
Fast-tracking Beam Monitor for Scanning Beam Therapy	R&D	Beta	Market Ready
	R&D	R&D	Beta