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## EDISC™ FEATURED AT THE 2006 SPINE **TECHNOLOGY SUMMIT**

2<sup>nd</sup> Generation Spinal Motion Preserving Technology

AKRON, OH (May 16, 2006) The Theken eDisc™ was a featured motion preserving spinal implant at the 2006 Spine Technology Summit held in Montreal, Canada at the Hyatt Regency on May 9, 2006. The eDisc is the first artificial spinal replacement disc which incorporates microelectronics. Richard Navarro, VP of Research and Development for Theken Disc presented on the biomechanics and microelectronics of the eDisc. The eDisc is 2<sup>nd</sup> generation total disc replacement (TDR) technology. Approximately 150 analysts, industry executives and physicians attended the presentation.



Theken eDisc physiologic design



Theken eDisc embedded microelectronics shown with proprietary TH200 polymer.

The first annual Spine Technology Summit moderated by Robin R. Young, CFA was designed to educate investors, industry, practitioners and analysts on the vast new technologies for spinal disorders such as disc repair, stem cell therapies, 2<sup>nd</sup> and 3<sup>rd</sup> generation motion preserving implants, facet joint repair, predictive diagnostics that will disrupt current treatment modalities, surgical robots and nucleus replacement.

300,000 people in the US undergo disc operations every year. About half of these operations are for the lumbar or lower back area. Prior to motion preserving technology, these operations were primarily fusion procedures to remove the disc and fuse the vertebrae together. The Theken eDisc is revolutionary TDR technology. It provides surgeons the unprecedented ability to assess and manage their patients through embedded microelectronics. Its unmatched replication of human disc motion separates the eDisc from first generation designs.

The microelectronics module and integral sensors allow the disc to collect data on the motions and loads experienced by the implant. Data from the eDisc is collected wirelessly by the surgeon using a handheld PDA communicator to access real-time or stored patient data. The data downloaded from the eDisc is interpreted through the user-friendly interface. This allows the surgeon to access and compare historical and current data. In office patient maneuvers can be performed and analyzed real-time in order to assess patient performance. This functionality will make it possible for the surgeon to monitor patient rehabilitation, improve surgical placement and assist in detecting auto-fusion.

The physiological design of the eDisc enables it to restore and maintain 6 degrees of freedom and elastic motion provided by a natural disc.

The eDisc is constructed using proprietary Theken-developed polymer, TH200. Over three years of in-house Theken development with world-renowned polymer experts, resulted in an elastomeric polymer specifically tailored to withstand the loads and motions of the lumbar spine. Rigorous load controlled fatigue testing shows that the TH200 is two to ten times more fatigue resistant than competing elastomers.

The eDisc is expected to begin clinical trials in 2007.

## **Company Profile**

Theken Disc is a member of the Theken family of companies. The Theken family of companies (www.theken.com) Theken Spine LLC, Theken Disc LLC, Theken Orthopaedic, Inc. and Therics LLC specializes in pioneering spinal implant technologies that improve spinal surgical techniques benefiting patients as well as surgeons. Theken provides comprehensive product lines that offer surgeons peace of mind through steadfast product reliability and easy-to-use instrumentation. Products include cervical plates, pedicle screws, spacers, degenerative/deformity and trauma devices. Theken also leads the market in next-generation artificial disc replacement technology.

## **Media Contact**

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Warning: The eDISC is not approved for implantation in the U.S.A.

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