



Ascension
Technology Corporation
Making Minimally Invasive Possible

PRESS RELEASE

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Low Cost Magnetic Sensors Enable New Generation of AFIB Treatment Options

Ascension to Present New Microminiaturized Sensors for Navigating Interventional Devices at Heart Rhythm Conference

BURLINGTON, VERMONT; April 24, 2008: **Ascension Technology Corporation** will showcase new DC magnetic navigation sensors for interventional cardiology at the Heart Rhythm Society (HRS) Meeting 2008, (www.hrsonline.org), in San Francisco, CA, May 15-17, 2008.

In conjunction with imaging equipment and visualization software, **3D Guidance medSAFE™** sensors precisely guide medical instruments to predetermined internal targets for building 3D anatomical maps, ablating tissue, and fusing imaging modalities together. In so doing, they provide the vital navigation link for new and improved interventions in the structural heart.

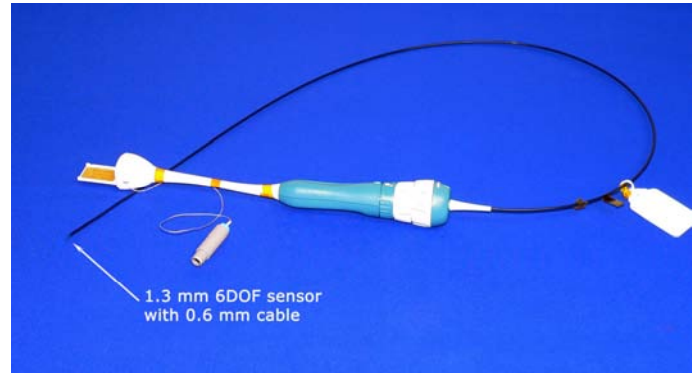
medSAFE works by magnetically tracking the real-time location (position and orientation) of the tip or multiple segments of a catheter as it is advanced within a patient. medSAFE sensors, which are low cost and disposable, react in real-time to low frequency magnetic fields that permeate the body without attenuation. As opposed to fluoroscopic imaging, medSAFE provides safe, three-dimensional tracking while minimizing reliance on ionizing radiation.

In one electrophysiology application, medSAFE sensors enable real-time feedback of the location of intracardiac ultrasound (ICE) and ablation catheters for visualization of cardiac anatomies. They also are used to widen the narrow field of view of ICE ultrasound by fusing sensor-tracked ICE images with pre-operative images, such as CT, C-arm or MRI, to improve procedural vision. This new functionality

was recently presented by Siemens researchers at the MICCAI 2007 conference in a paper entitled, "Image Guidance of Intracardiac Ultrasound with Fusion of Pre-operative Images."

Microminiaturized Sensor for Cardiac Intervention

medSAFE sensors have been miniaturized for use in catheters and biopsy needles as small as 3 French and 20 gauge. Ascension's new generation of DC magnetic sensors addresses the clinical requirement for unobtrusive integration of sensors into a wide range of catheters and interventional devices for in vivo visualization and navigation.



At HRS, Ascension will provide LIVE demonstrations of medSAFE tracking a 0.3 mm (diameter) sensor navigating a probe to a soft-tissue lesion in a metallic environment. medSAFE offers the latest advances in pulsed DC magnetic technology for overcoming metal and noise issues that previously restricted widespread use in medicine. Its new "flat" field generator incorporates a shield to negate the distorting effects of magnetic metals beneath its surface; other transmitter models allow fluoroscopic beams to pass through a central "radio-translucent" opening. DC also eliminates errors resulting from low frequency noise sources and 300-series stainless steel, titanium, and aluminum instruments and objects. Measurement accuracies are unaffected when tracking in close proximity to intravascular ultrasound arrays and composite beds.

medSAFE meets all pertinent electrical and safety regulations. It is classified as a Class 1, Type CF, Defib Proof (applied parts) device for use within the body when incorporated into an approved medical instrument.

The 2008 HRS Convention will be held at the Moscone Center in San Francisco. Ascension's exhibit will be in **Booth 1738**. Representatives will be on hand to provide information about Ascension's tracking products and interventional cardiology procedures.

Ascension Technology Corporation, based in Burlington, Vermont, USA, is a world leader in magnetic guidance and localization solutions for surgical navigation. See www.ascension-tech.com or contact Trish Scott at 802-893-6657, ext 34.

Biomedical references and procedures described herein are examples of what can be accomplished with tracking and imaging technology once end users and/or systems integrators have complied with all pertinent FDA/CE/IRB directives.

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