Magnetic Technology Takes Guesswork Out of Ultrasound-Guided Procedures

BURLINGTON, VT (March 22, 2011) – Ascension’s 3D magnetic sensors – a key feature in GE Healthcare’s LOGIQ E9 Ultrasound System -- are helping improve the accuracy of interventional procedures around the world.

Click here to watch the video: GE - LOGIQ E9 Volume Navigation Needle Tracking

The sensors -- combined with CIVCO’s toolsets and GE’s visualization software -- have driven growth in GE’s ultrasound market worldwide. To prove the point, GE has announced the shipment of its 3,000th E9. The milestone was reached late last year. Growth is expected to continue unabated as more and more health care organizations acquire the advanced imaging technology and its navigation modules.

“As image-guided procedures mature and eventually become standard of care, Ascension will be a key provider for the medical industry” said Jack Scully, Ascension’s vice president of new business development. “Our job is to help medical device companies help clinicians provide the highest level of care for patients.”

Ultrasound imaging is frequently used to guide interventional medical procedures – from core tissue biopsies to injections to ablations. However, monitoring the real-time path of a needle or probe to its intended target can be a challenge. Parts of the anatomy, such as the ribs, bowel and organs, can occlude the instrument and ultrasound imaging is restricted to two-dimensional scans.
The addition of Ascension sensors eliminates the occlusions and allows three-dimensional targeting. One or more sensors on the ultrasound probe and a miniaturized sensor embedded in the tip of a needle provide continuous localization. Tracking data is transmitted instantly to the E9’s Volume Navigation software that, among other things, presents a graphical overlay of the instrument’s trajectory to its target. Even before the skin is punctured, a clinician can plot the precise angle and point of entry for the biopsy needle – either in or out of plane.

“Healthcare organizations worldwide have embraced the LOGIQ E9 for its technology advancements that lead to improved accuracy and increased confidence — two attributes that help ensure every patient receives consistent, quality care,” said Anders Wold, vice president, GE Healthcare Ultrasound.

In addition to instrument tracking, the sensors permit volumetric measurements and fusion of real-time ultrasound and pre-acquired images, such as CT, MR, or PET, for improved procedural vision.

About Ascension

Ascension Technology Corporation is a professional 3D tracking company specializing in navigation and guidance devices for medical instruments. Its optical and magnetic tracking devices are key enabling technology for image-guided procedures. Ascension’s magnetic sensors are currently used for needle tip navigation, volumetric measurement, and image fusion by leading medical device companies including GE Healthcare, Hitachi, Esaote, Ultrasonix, CIVCO, and many others. For more information, visit http://www.ascension-tech.com

About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Headquartered in the United Kingdom, GE Healthcare is a $17 billion unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employs more than 46,000 people committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit www.gehealthcare.com

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Biomedical reference and procedures described here are examples of what can be accomplished with 3D tracking and imaging technology when used in compliance with pertinent FDA/CE/IRB directives.