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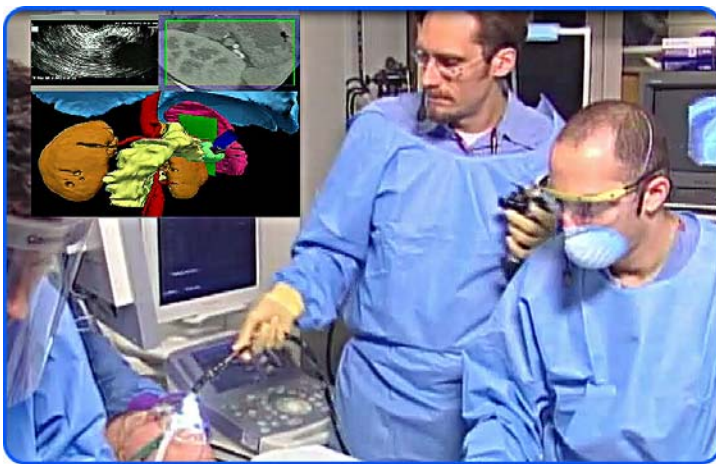
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# CIMIT and Ascension See Promising Results In National Cancer Institute Study

BURLINGTON, VERMONT; July 6, 2010: **Ascension Technology** and **CIMIT** (the Center for Integration of Medicine and Innovative Technology), a consortium of Boston-area teaching hospitals and engineering schools, are seeing promising results as part of Phase II National Cancer Institute (NCI) grant **to evaluate image-guided systems in the diagnosis of pancreatic cancer.**

Phase I of the CIMIT/Ascension NCI study focused on the integration of Ascension's 3D Guidance navigation sensors into an experimental imaging device. Results were sufficiently positive to justify an initial series of image-guided laparoscopic animal studies.



**Christopher Thompson, MD, performing Image Registered Gastroscopic Ultrasound (IRGUS) on a patient at Brigham and Women's Hospital in Boston, MA. Keith Obstein, MD, is assisting Dr. Thomson. The inset shows the IRGUS display.**

Phase II has focused on clinical studies in humans. Image-guided laparoscopic and endoscopic diagnostic procedures have been evaluated on patients at two partner hospitals – Brigham and Women's in Boston, MA, and Queen Elizabeth Hospital in Halifax, Nova Scotia. Phase II results to date have confirmed that using real-time image guided laparoscopy and endoscopy to help diagnose pancreatic cancer is "an idea that clearly works," states Kirby Vosburgh, Ph.D., Principal Investigator of the study and Associate Director of CIMIT.

According to Dr. Vosburgh, pancreatic cancer is challenging to diagnose. First, the pancreas is deep in the body and not normally observed. Second, there are no biological markers that might indicate a person's propensity to develop pancreatic cancer. Perhaps most importantly, the pancreas is not an encapsulated organ (unlike the kidney for example) having a containing membrane. When a tumor grows inside the pancreas, it isn't trapped, causing pressure and pain, but rather spreads to adjacent organs and blood vessels. When finally symptomatic, it is generally too late to remove it safely.

The long-term objective of the CIMIT/Ascension NCI study is to enhance the effectiveness and reduce the morbidity of invasive procedures in the abdomen through the real-time application of improved imaged-based information. During Phase II, with Ascension sensors placed on surgical instrument tips (enabling the fusion of real-time ultrasound with CT images/constructed anatomical models), surgeons have been able to locate targets with "ease, simplicity and greater accuracy", said Vosburgh. To date, six (of 25 approved) patients with suspected pancreatic cancer have been examined successfully using "image-registered gastroscopic ultrasound."

Phase II research also confirms the potential for the technology to be successfully applied to other kinds of solid organ cancers and more general abdominal surgeries. The major advantage of minimally invasive image-guided laparoscopy and endoscopy is that they offer patients advanced medical care along with the ability to be ambulatory soon after surgery.

**Center for Integration of Medicine and Innovative Technology (CIMIT)** based in Cambridge, MA, is a non-profit consortium of teaching hospitals and engineering schools that provides innovators with resources to explore, develop, and implement novel technological solutions urgent healthcare problems. More information about CIMIT is available at [www.cimit.org](http://www.cimit.org).

**Ascension Technology Corporation**, based in Burlington, Vermont, makes magnetic and optical navigation sensors for medical applications. Its sensors represent the key enabling technology for image-guided procedures. For more information, visit [www.ascension-tech.com](http://www.ascension-tech.com)

*Biomedical references and medical procedures described here are examples of what can be accomplished with tracking and imaging technology in compliance with pertinent FDA/CE/IRB directives.*

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