Heart Imaging Simulator Aided by Ascension Sensors

New Simulator Advances Medical Training; Leads to Improved Skills and Quality of Care

Burlington, VT (December 11, 2012) – A new HeartWorks simulator is raising the standard for training in echocardiography, a procedure that uses high-frequency sound waves to create a video image of a functioning heart.

The simulator uses ultrasound probes containing Ascension Technology Corporation sensors – allowing students of cardiac physiology and clinical practitioners to develop imaging and interpreting skills that are in demand in the field of intensive care, without risk to patients. View a demonstration of the HeartWorks simulator at http://www.heartworks.me.uk/index.php?page=toemanikin&lang=uk.

In echocardiography, images of the functioning heart are obtained through either a transthoracic procedure, using a hand-held probe placed over the chest, or a transesophageal procedure (TEE) that creates close-up images of the heart via a probe guided through the mouth into the esophagus. The HeartWorks simulator uses a lifelike manikin torso, visualization software and an ultrasound probe to provide training in both procedures.

Using the ultrasound probes, trainees gain practice obtaining varied views and interpreting 2D ultrasound images while working in the context of the 3D structures of a beating heart. The simulated 2D and 3D images are displayed side-by-side on a computer screen.
The educational and clinical benefits of using the HeartWorks simulator include improved learning and understanding of echocardiography and cardiac anatomy, enhanced skills acquisition, accelerated learning, better informed clinical practice and improved quality of patient care.

HeartWorks Chief Executive Ian Whittaker commented: “We initially chose Ascension sensors because we perceived them to have an unrivaled technology, which they do. However, as we launched activity with Ascension we were hugely impressed with their engineering support and desire to work with us to optimize the HeartWorks solution for our customers. It has developed into a true partnership relationship.”

The HeartWorks simulator is based on an anatomically accurate and interactive computer-generated 3D model of the heart. The heart model images can be enlarged, zoomed, tumbled around the screen and sliced in any plane, including the ultrasound plane as positioned by the operator.

“This powerful learning tool has greatly simplified the understanding of TEE anatomy and image orientation and has the potential to literally change the landscape of TEE training,” said Dr. Feroze Mahmood, director of Vascular Anesthesia at Beth Israel Deaconess Medical Center in Boston. “It is a revolutionary advancement in the field of echocardiography with an enormous potential.”

For more information about HeartWorks, developed by Inventive Medical Limited, go to heartworks.me.uk or contact Ian Whittaker or Sandy Stanton, Operations Manager at info@inventivemedical.com.

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**About Ascension**

Ascension Technology Corporation, an NDI company located in Milton, Vt., is a world leader in magnetic and optical tracking solutions for medical, biomedical and commercial applications. News about Ascension trackers in biomedical research is available at www.ascension-tech.com, or from Joanna Harrington at: 802-893-6657, ext. 44.