New Maestro AR™ 3D augmented reality Inguinal Hernia Repair module brings procedure-specific content to robotic surgery simulation training for General Surgery

The Maestro AR Inguinal Hernia Repair module debuts at CRSA, October 2, and ACS, October 5, 2015

Seattle, Washington – Mimic Technologies, Inc, announces the launch of the Maestro AR Inguinal Hernia Repair, a new augmented reality software module exclusively available on their dV-Trainer® robotic surgery simulator. Maestro AR is the first robotic surgery simulation technology that allows trainees to manipulate 3D virtual robotic instruments as a way to interact with 3D endoscopic video footage of an actual surgical case.

This full procedure simulation was developed in collaboration with Dr. Rick Low, M.D., Chairman of Surgery at John C. Lincoln Hospital, Phoenix, AZ, Chairman of the Robotic Program at John C. Lincoln Healthcare Network, and Medical Director for CAVA Robotics. Using 3D augmented video, Dr. Low guides trainees through each step of a robot assisted laparoscopic Inguinal Hernia Repair, from port placement and robot setup considerations to the final steps of the surgery. "With this Maestro AR procedure-specific training module, we present a reproducible, stepwise approach to robotic Inguinal Hernia Repair that we believe provides an excellent mechanism for the developing robotic surgeon to overcome the learning curve and mature into an expert robotic surgeon", said Dr. Low.

At each critical juncture of the procedure, trainees experience both cognitive learning and robotic surgery skills development by identifying critical anatomical structures and surgical landmarks, simulating tissue retractions, predicting dissection planes, answering multiple choice questions, and completing virtual reality skills exercises. Embedded virtual reality tasks emphasize hand-eye motor skills critical to proficient surgical technique, including needle handling and driving, knot-tying, and closure of a peritoneal defect. For each step in the procedure, comprehensive metrics are gathered and reported, allowing trainees to objectively track their progress at learning the procedure and becoming proficient with required robotic surgery skills.

Maestro AR for Inguinal Hernia Repair divides the complete procedure into the following steps:

1. Patient Positioning and Setup
2. Exposure of Pre-peritoneal Space
3. Reduction of Hernia Sac
4. Positioning and Suturing of the Mesh
5. Closing the Peritoneum

"By augmenting real surgical video with interactive virtual content, we are able to deliver realism on a whole new level," said Jeff Berkley, PhD, CEO of Mimic Technologies, Inc. "Our process for generating augmented reality is also extremely efficient and we expect to generate a large volume of content over the next few years that will allow trainees to walk through a wide variety of surgical scenarios as presented by world leading educators. We feel this will expose surgeons to a tremendous variety of surgical scenarios that would not normally be encountered under a normal case load."

Maestro AR is available exclusively on the Mimic dV-Trainer. In addition to Inguinal Hernia Repair, modules for Hysterectomy (lead by Dr. Arnold Advincula of Columbia University) and Partial Nephrectomy (lead by Dr. Inderbir Gill of USC) are also available. Prostatectomy and Lower Colon Resection will be added to the package within the next half year.

Maestro AR for Inguinal Hernia Repair will be demonstrated at the Mimic Technologies booth at the Clinical Robotic Surgery Association (CRSA) in Chicago, IL, on October 2-3, 2015, and during the American College of Surgeons Clinical Congress (ACS), Mimic Booth #756, Chicago, IL, on October 5-7, 2015. In addition, Dr. Low will be speaking about Maestro AR at CRSA on Saturday, October 3, 2:05pm in a talk titled, "How to optimize costs and time in ventral hernia repair".

For more information:
www.MimicSimulation.com/IHR

Mimic Technologies, Inc, founded in 2001 and based in Seattle, is a pioneer and leader in robotic surgery simulation and training.

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