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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health



National Institutes of Health Commercialization Assistance Program  
(NIH-CAP)

## Company Profile

**Industry Sector:** Technology-assisted healthcare training

**Company Overview:** SimQuest's mission is to create state-of-the-art simulators and innovative custom medical training solutions that allow healthcare professionals to increase and sustain their knowledge and develop skills without risk to patients.

**Target Market(s):** Medical schools and teaching hospitals worldwide; US and allied military medical training commands; Emergency medical personnel worldwide

## Key Value Drivers

**Technology\*:** SimQuest's simulator for training students to perform open-access soft-tissue surgery is built with computational mechanics physics engines that use material properties of tissue, tools, and sutures to reproduce the behavior and appearance of real tissue as it is manipulated by surgical tools. The student stands as s/he would in an OR, uses tools held in both hands, watches the tools interact with the tissue on a screen placed between the student's eyes and hands, and feels the correct forces and torques due to tool/tissue interaction via haptics devices connecting the surgical tools to the simulator, which collects real-time metrics on student performance. A "tool chain" enables development of surgical training scenarios and associated objective metrics.

**Competitive Advantage:** SimQuest's simulator is more realistic in its tissue response than cadaveric tissue, eliminates the ethical issues involved in using animals, is far safer than practicing on live patients, and can provide a range of training situations and capture objective metrics of student performance in ways not possible with these traditional methods. It also expands the timing and locations available for learning.

**Plan & Strategy:** Seeking a strategic partner and a content development partner.

\*Technology funded by NIBIB and being commercialized under the NIH-CAP

## Management

### Leadership:

Howard R. Champion, MD, FRCS (Edin), Chief Executive Officer  
Dwight R. Meglan, PhD, Chief Technology Officer  
Paul M. Cashman, Senior Vice President  
Robert Waddington, Chief Operating Officer  
William Aggen, Vice President, Instructional Design

## Product Pipeline

|                                          | 2010                                        | 2011                                                               | 2012                                                      | 2013                          |
|------------------------------------------|---------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------|
| <b>Platform &amp; content milestones</b> | Wound closure with didactics                | Production-ready user interface h/w                                | Alpha/beta tests; full product release                    | Additional training scenarios |
| <b>Commercial-ization milestones</b>     | Demos to tech companies, content developers | Hire biz dev VP; recruit and sign mktg/sales/dist./support partner | Start selling for 2013 delivery; train front-line support | First customer ship           |