Regional Anesthesia Simulator for Training of Resident and Staff Pain Management Specialists

Award Information
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Branch: N/A
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Small Business Information
ENERGID TECHNOLOGIES
124 Mount Auburn Street, Suite 200 North, Cambridge, MA, 02138
Hubzone Owned: N

Socially and Economically Disadvantaged:
Woman Owned: N

Duns:
007341493

Principal Investigator
Name: John Hu
Title: Director Medical System a
Phone: (888) 547-4100
Email: jjh@energid.com

Business Contact
Name: Neil Tardella
Title: COO
Phone: (888) 547-4100
Email: nbspnmt@energid.com
Abstract
In this project, Energid will develop a regional anesthesia simulation and training system. Energid will create a natural, immersive virtual environment unlike any developed before, incorporating haptic, visual and auditory feedback. Anesthesiologists will use the untethered needle and syringe in simulated regional anesthesia procedures. This will be accomplished by a novel vision-based tracking system and innovative devices capable of generating haptic feedback during needle insertion, needle injection and palpation through MR (magneto-rheological) fluid control. Both stimulator-based and ultrasound imaging guided regional anesthesia procedures will be simulated in the training system. The simulation system will provide initial training for students, as well as continuity training for seasoned anesthesiologists requiring ongoing training for procedures that demand significant technical skill.

* information listed above is at the time of submission.