Title: Medical Robotics: Fact or Fiction?

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There has been a great deal of media coverage of medical robotics and the use of robotic systems for surgical procedures has been increasing. However, the benefits of using robotics in the operating room have not been quantitatively established. Still, it is envisioned that the use of robotics in medicine will continue to increase and it is believed that these systems can play a role in minimizing invasiveness and improving the precision of medical procedures. In this talk I will discuss these issues as well as present some history of medical robotics and some examples of current robotic systems used in the operating room.

BIOGRAPHY

A research professor and engineer, Kevin Cleary, PhD, leads the Institute's interdisciplinary bioengineering team with a focus on improving visualization in pediatric surgery through medical devices and robotics. As part of that work, he will modify devices designed for adult surgery to work better in the smaller bodies of children. Embracing the unprecedented opportunity to work side by side with physician researchers and other engineers, Dr. Cleary seeks to expand and improve the application of robotics and other devices in pediatric surgery. Dr. Cleary believes the fledgling field of pediatric robotics can advance faster thanks to the unique multidisciplinary set up of the Institute. Dr. Cleary was previously at Georgetown University Medical Center's Department of Radiology where he was director and professor at the Imaging Science and Information Systems Center. He is the co-editor of the book Image-Guided Interventions: Technology and Applications. Dr. Cleary received his doctorate from the University of Texas in Austin and was an NSF-sponsored post-doctoral fellow in robotics in Japan.