Editorial for special surgical issue

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Laparoscopy has dramatically changed the paradigm of surgery. Beliefs that a bigger incision provides better exposure have slowly but assuredly been replaced by the pursuit of smaller and fewer incisions. The advantages of laparoscopy over open surgery were easily demonstrated with less postoperative pain, shorter hospital stays, quicker recovery, and even beyond with demonstrations of decreased adhesion formation and decreased inflammatory response to surgery.

Although it has been 13 years since the first robotic general surgery procedure was performed, robotic surgery still remains, to a large extent, a new and relatively unexplored frontier in surgery. Led by urologists and robotic prostatectomy, however, other fields of surgery are slowly starting to follow suit. The challenges have largely been the costs and the availability of the robotic systems; however, acceptance of robotic surgery has also been hampered by attempts to measure the incremental benefits of robotic technology in similar terms to that of laparoscopy. The advantages of the robotic system are obvious to anyone that sits at a console: tremor filtration, scaling of motion, seven degrees of freedom, high definition, and magnified three-dimensional stereoscopic vision. All of these simply translate into the surgeon's ability to see much better, work more precisely, and accommodate smaller working spaces. However, the benefits of robotic surgery will unlikely be measured by decreased pain, quicker recovery, or even perhaps better clinical outcomes. The impact of robotic surgery will go far beyond that. Robotic surgery heralds a different era of surgery that will

profoundly change not only the way a surgeon operates, but also the way the surgeon will interact with the surgical environment and the patient. Integration of data, including stored and real-time imaging, into the surgical procedure; simulation-based presurgical planning; real-time collaboration with peers through console-based links; and further miniaturization and eventual wireless control of the patient-side instruments, will transform the MIS bedside surgeon into a conductor positioned in a surgical "cockpit" separated from the patient with access to a wide breadth of data orchestrating a complex interaction of events that will translate into very efficiently and precisely executed actions.

As we stand at the eve of this surgical evolution, we are proud to present some of the global thought leaders of general surgery in robotic surgery with a special robotic general surgery section.

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