Surgeons of Mount Sinai have been leaders in the use of the DaVinci® robotic system and other minimally invasive techniques. Here are three who are defining—and refining, over and over again—how surgery is practiced.

David B. Samadi, MD

Transforming Prostatectomy

Prostatectomy—the removal of a diseased prostate gland—has long been considered one of the riskiest of medical procedures. Because the prostate is surrounded by nerves which control sexual and excretory functions, the slightest error can leave a patient both impotent and incontinent. But through the use of robotics, David B. Samadi, MD has been able to perform more than 3,800 robotic prostatectomies—2,200 of them taking place at Mount Sinai—with amazing results: “Ninety-seven percent of patients retain continence,” he says, “and eighty-five percent retain sexual function. Ninety-five percent stay only one night in the hospital. Pain is minimal.” As Chief of Robotics and Minimally Invasive Surgery and Vice Chairman of the Division of Urology at Mount Sinai, Dr. Samadi, a urologist, performs almost 15 robotic prostatectomies a week, using a procedure he has dubbed SMART (Samadi Modified Advanced Robotic Technique). The main advantages of the technique, he says, are the ability of the DaVinci® system to handle the prostate without disturbing “the delicate, sensitive nerves” around it, and to give him a clear, precise view. “In open surgery, you use ‘the touch factor’ because you can’t see the detail of the procedure,” he notes. “With the SMART technique, I can see the detail—so I can perform a precise operation.” As one of only a handful of surgeons trained in open, laparoscopic, and robotic techniques, Dr. Samadi provides the skills of three separate surgical disciplines. He combines a complete understanding of traditional open surgery with less painful, minimally invasive laparoscopy, and advanced robotic technology—and he performs every surgery himself.
Eric M. Genden, MD

Streamlining head and neck surgery

Eric M. Genden, MD is no stranger to innovative surgical procedures—he was the first surgeon in the United States to perform a jaw transplant. So it’s not surprising that he has been a pioneer of robotic surgery in his field of specialty, cancers of the head and neck. “It’s made a remarkable impact on our ability to take care of patients with these cancers,” says Dr. Genden, “without making large incisions and doing surgeries that take up a huge amount of time and resources.” Dr. Genden, Chairman of the Department of Otolaryngology and Chief of the Division of Head and Neck Oncology, performed his first robotic surgery in 2006 and has since done close to 250 such procedures. The biggest advantage of the robotic procedure, he says, is its relative simplicity: “In the typical open surgery, patients have to undergo a 12-to-14-hour procedure to get to the tumor, and they’re usually in the hospital for 10 to 12 days. Using the robot, we’re able to remove the tumor in about two hours—and patients usually go home the next day, eating and drinking, and swallowing.” Dr. Genden notes that the robotic technique “is being adapted widely, not only across the U.S. but now in Europe and Asia—because people are seeing that this has a tremendous effect on both the quality of patient outcomes and the cost of care.”

William B. Inabnet III, MD

Minimizing thyroidectomy

As Chief of the Division of Metabolic, Endocrine and Minimally Invasive Surgery, William B. Inabnet III, MD leads a team that has performed more laparoscopic surgeries than at any other hospital in New York City. Dr. Inabnet and his team performed the first robotic thyroidectomy at Mount Sinai in 2010, and are strong advocates of both robotic and non-robotic minimally invasive procedures to remove part or all of a diseased thyroid gland. In the most common procedure, a laparoscope with a tiny, high-definition video camera is inserted into a remote incision, so that he and his team have a bigger, clearer view of the operative field on a television screen. “Minimally invasive endoscopic thyroidectomy promotes teamwork,” says Dr. Inabnet, “because all members of the team can follow each step of the operation in real time.” There is also a cosmetic advantage: the patient is left with a one-to-two-inch scar in the axilla (underarm), as opposed to a visible scar on the neck in a traditional operation. “Every year,” he notes, “we graduate two minimally invasive endocrine surgery fellows who have learned these techniques at Mount Sinai. We’re training the next generation of minimally invasive thyroid surgeons.” More information can be found at mountsinai.org/memis.