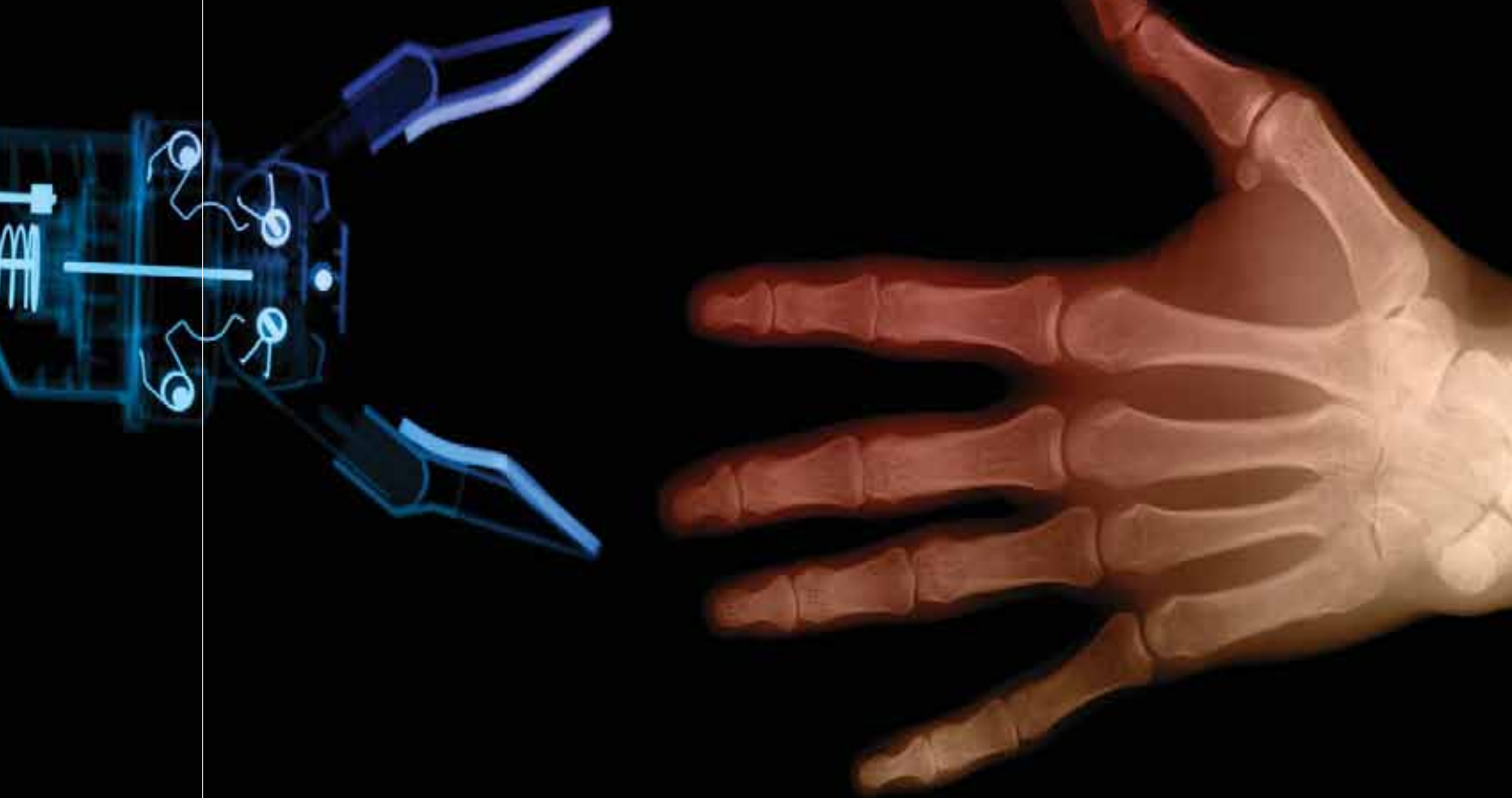


The Humanity Behind Robotics

Kristin Lund



In popular culture, robots are often portrayed as inhuman: precise, tireless—and cold. Does this mean robot-assisted surgeries lack a human touch? Not at all, according to **Dr. David Samadi**. In fact, the robot is an extension of the surgeon—and the surgery is all about being human.



“**A** robotic prostatectomy solves some very human problems,” says Dr. David Samadi, Chief of the Division of Robotics and Minimally Invasive Surgery in the Department of Urology.

“Following a traditional procedure, men are often sent home with debilitating aftereffects, including incontinence and sexual dysfunction. Yes, the cancer is gone, but their quality of life is much reduced, and often their relationships suffer. This result isn’t good enough—it isn’t humane enough. With a robotic procedure, men can address the cancer without giving up other important aspects of their lives.”

Fine control

Compared to radiation therapies, prostate surgery leads to improved outcomes because it removes the prostate—and with robotic machinery, an experienced surgeon can be even more precise with the removal. The da Vinci® Surgical System used at Mount Sinai combines high-resolution cameras with microsurgical instruments, improving the

surgeon’s visualization and dexterity, translating his or her hand movements into micromovements that enable a superhuman level of control. A recent study showed that robotic prostatectomies were markedly more successful than open surgeries in

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eradicating cancer, and this extremely fine level of control also means a surgeon can avoid damaging the urinary tract and the nerves that affect bladder control and sexual function.

Because the robotic procedure requires only five quarter-inch incisions, the patients experience less blood loss, fewer transfusions, and a shorter recovery period. More than 90 percent of robotic prostatectomy patients can return home within 24 hours of the procedure.



“Working in a bloodless field,” says Dr. Samadi, “you don’t have to feel your way through the surgery. The patient has less pain, spends less time in the operating room, has a lower risk of infection, and even has a better prognosis. Robotic surgery offers all of this and helps men return to living normal lives.”

Compassion and expertise

But technology doesn’t replace skill, as he points out. “The machine is only as good as the person using it—so again, the human aspect is crucial in robotics. The da Vinci® Surgical System is designed to take an already skillful surgeon and help that person do incredible things.

“As with any medical specialty, the strength of a program comes from the strength of its team,

regardless of how many robots they have. At Mount Sinai, we have been able to assemble an exceptional group of people whose compassion and expertise make them uniquely qualified to care for our surgical patients.”

Dr. Samadi’s biography is a compelling one that speaks to his own compassionate concerns. A Persian Jew living in Iran when the Shah was deposed, he was forced to flee at the age of 16, with his younger brother and only a few hundred dollars to his name. To survive, the brothers depended on the generosity of strangers, whose kindness inspired him to seek ways of giving back to society. As a urologic oncologist, he was trained in three different surgical disciplines:

open surgery, laparoscopic surgery and robotic surgery—an unusual and comprehensive set of skills.

“I am always looking five years ahead,” he explains. “If you want to help people, you need to think about tomorrow—this is what I learned when I was young. The newest procedures will be history before you know it, so I am always watching for the next great thing.”

Dr. Samadi has developed a richly informative website (www.roboticoncology.com) and the six-session “Man to Man” prostate cancer education program at Mount Sinai. “Technology speeds up the medical process,” he says, “so it’s important to slow down and talk with people, both colleagues and patients. The robots help us do amazing things, but there is no substitute for human connection.” ■