Breaking Barriers
Creating a New Model of Care
DEPARTMENT MISSION

The Department of Surgery at the Mount Sinai Health System aims to provide expert surgical care that is informed by groundbreaking research and inspired by advanced education, to benefit not only the patients we treat today, but the many patients we will have the honor of treating in the future.

The Mount Sinai Department of Surgery Year in Review – 2018 is the reformatted Annual Report of the Department of Surgery. This new format succinctly highlights the top achievements from the Mount Sinai Department of Surgery and provides a convenient way to learn more about the department’s work.

MICHAEL L. MARIN, MD
THE JACOBSON PROFESSOR OF SURGERY
CHAIRMAN, DEPARTMENT OF SURGERY
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
SURGEON-IN-CHIEF
MOUNT SINAI HEALTH SYSTEM

WILLIAM B. INABNET, III, MD
EUGENE W. FRIEDMAN, MD PROFESSOR OF SURGERY
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
CHAIRMAN, DEPARTMENT OF SURGERY
MOUNT SINAI BETH ISRAEL
MOUNT SINAI BROOKLYN

DANIEL M. LABOW, MD
PROFESSOR OF SURGERY
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
CHAIRMAN, DEPARTMENT OF SURGERY
MOUNT SINAI ST. LUKE’S
MOUNT SINAI WEST

WRITER AND EDITOR
Bridget O’Brien
Associate Director of Marketing and Outreach
Department of Surgery, Mount Sinai Health System

DESIGN
Decker Design

PHOTOGRAPHY
Karsten Moran Photography
Patrick Schnell

Special thanks to:
• Wendy Jacobson, MD, Adjunct Professor, Emory University School of Medicine, and Training and Supervising Analyst at Emory University Psychoanalytic Institute
• Susan McCormick, Associate Director of Stewardship, Office of Development, Mount Sinai Health System
• Barbara Niss, Mount Sinai Archivist
• Jessica Shafer, Senior Director, Office of Development, Mount Sinai Health System

MSHS MISSION

The mission of the Mount Sinai Health System is to provide compassionate patient care with seamless coordination and to advance medicine through unrivaled education, research, and outreach in the many diverse communities we serve.

Table of Contents

1......Chairman’s Message
2......Department of Surgery Advisory Board
4......Departmental Metrics and Quality
5......Divisional Updates
5..........Colon and Rectal Surgery
6..........General Surgery
8..........Pediatric Surgery
9..........Plastic and Reconstructive Surgery
10.........Surgical Oncology
11.........Vascular Surgery
12.....The Derfner Ambulatory Surgery Suites
13.....Patient Stories
14.....Map of Locations
15.....Global Surgical Health
16.....Education and Research
17.....Honoring our Endowed Chairs
Over the past year, we have sustained our legacy as leaders in the field of surgical care by remaining at the forefront of surgical innovation. Faculty and staff worked together to challenge the status quo and break down barriers to communication and collaboration that once siloed our work and limited our ability to provide the best possible care to the many communities we serve. Our success in identifying and abolishing these barriers is proven by the outstanding results we have seen over the past year, from each area of our department.

Here are just some of the highlights from this year:
• Surgeons at Mount Sinai Beth Israel performed the first endoscopic transoral thyroidectomy in New York (page 6).
• The new plastic surgery suite is now open and features first-of-its-kind technology built for Mount Sinai by Microsoft (page 9).
• Our Hyperthermic Intraperitoneal Chemoperfusion (HIPEC) program progressed beyond adult care to treat pediatric patients (page 8).
• We opened one of New York State’s first Aortic Disease Centers, The Julius and Joan Jacobson Aortic Disease Center (page 11).

• Our Global Surgical Health Program has expanded to Uganda, Africa, where we have broken ground on the construction of a new surgical facility (page 15).

It is because of these highlighted areas and many more that our Department of Surgery remains a leader in patient care, education, and research. We are exceedingly proud of our department’s ability to challenge and break down traditional barriers in order to realize sustained surgical excellence, continued growth, and an inspired vision for the future. We hope you enjoy learning about our progress.
The following projects were funded wholly or in part with generous gifts made by The Department of Surgery Advisory Board members. The Department of Surgery is ever grateful for the transformational opportunities made possible by the Board. Its support has helped launch programs that will help change the way we think about and provide surgical care, not only to the residents of the Tri-state Area, but to our neighbors across the globe.

To learn more about any of these initiatives, or other ways in which the Advisory Board makes a meaningful impact at Mount Sinai, please contact Jessica Shaffer, Senior Director of Development, by phone at 646-605-8761, or by email at jessica.shaffer@mountsinai.org.

The Kyabirwa Surgical Facility

Aiming to address the severe shortage of safe and affordable global surgical care, the Department of Surgery has begun construction on the Kyabirwa Surgical Facility (KSF) in Uganda, Africa. See page 15 for more.
THE THRIVING DERFNER FOUNDATION AMBULATORY SURGERY SUITES
Patients continue to rank the surgical suites in the 95th percentile for patient satisfaction, according to Press Ganey scores, a rating the unit has enjoyed for seven consecutive years. See page 12 for more.

Mount Sinai Opens Aortic Disease Center

Mount Sinai continued its legacy in the treatment of aortic aneurysms, by opening of one of New York State's first Aortic Disease Centers, which was established through the generous support of Julius H. Jacobson, II, MD, Director Emeritus of Vascular Surgery and Distinguished Service Professor of Surgery at Mount Sinai, and his wife, Joan Jacobson. The Center will be devoted to improving overall patient care and education, and advancing research and treatment efforts, including preventive strategies for aortic aneurysms and other diseases of the aorta.

New Research Grants Awarded
The Research and Academic Development Committee has chosen the winners of two new pilot research grants, funded by the Advisory Board. Each award totals $50,000 to be used over two years. It is hoped that this pilot program will lead to competitive extramural grant proposals that will allow the investigators to continue their research. Awardees are: Paul Thodiyil, MD, Assistant Professor, Department of Surgery, Icahn School of Medicine at Mount Sinai; and Windsor Ting, MD, Associate Professor, Department of Surgery, Icahn School of Medicine at Mount Sinai. Dr. Thodiyil’s study, “Randomized Controlled Trial of Incretin Mimetics after Bariatric Surgery in Reducing Diabetes Recidivism,” hypothesizes that administration of incretin mimetics after bariatric surgery will reduce the recurrence of type II diabetes. Dr. Ting’s study, “The Mount Sinai Diabetic Limb Salvage Project — A Pilot Research Project,” aims to provide preliminary evidence that treatment of proximal venous outflow obstruction with venous stents in the iliac veins will improve the outcomes of diabetic foot ulcers.

Pro Bono Cochlear Implant
Tatuleka “Ruth” Shelomith, a two-year-old from Uganda, was recently given the gift of hearing at no cost to her family thanks to a team of physicians and staff at the Mount Sinai Health System and the generous philanthropic gifts given to the Department of Surgery. See page 13 for Ruth’s full story.
The Department of Surgery has remained aligned with the goals of the Mount Sinai Health System (MSHS) to grow and build in areas of volume, revenue, faculty recruitment, and quality initiatives. Our level of expertise in and commitment to the surgical arena are demonstrated by our continued recruitment of top talent, ever-growing case volume and revenue figures, and steadfast, intensive focus on quality measures.

**Revenue/Philanthropy**

MSHS data reflected as of 2016

- Total Philanthropy
- Total Patient Revenue

**Case Volume**

MSHS data reflected as of 2016

**National Surgical Quality Improvement Program (NSQIP®)** The American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) helps hundreds of hospitals across the country gauge the quality of their surgical programs through the collection of data that provides fair, in-depth and insightful analysis. This data helps surgeons and hospitals better understand their quality of care compared to similar hospitals with similar patients. The Mount Sinai Hospital was recognized for meritorious outcomes for surgical patient care for three consecutive years (2015-2017) by ACS NSQIP, being one of only five hospitals to receive the status in three consecutive years as of 2017.

**Enrollment in Pediatric ACS NSQIP®** The Division of Pediatric Surgery recently enrolled in the pediatric version of the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP). Participation in the pediatric ACS NSQIP will enable our surgeons to track surgical outcomes data and measure them against a national baseline to identify areas of improvement, and will also allow our team to share process improvement ideas and best practices with other institutions.

**The Collaborative Endocrine Surgery Quality Improvement Program (CESQIP)** aims to improve the value of care delivered by helping endocrine surgeons make informed decisions quickly and facilitate continuous improvement. The program was recently approved by the Centers for Medicare and Medicaid Services (CMS) as a Qualified Clinical Data Registry for the 2017 reporting year. The registry captures and analyzes data that are clinically relevant for endocrine surgeons, thus allowing physicians to understand and adjust their 2017 performance to improve patient outcomes and optimize future reimbursements under the CMS Quality Payment Program.

**The Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP®)** accredits bariatric surgery centers in the United States and Canada in accordance with nationally recognized bariatric surgical standards. The MBSAQIP aims to provide continuous quality improvement of bariatric patient care, including improved morbidity and mortality. The MBSAQIP has been implemented across the MSHS with three bariatric programs—of only 64 programs in New York—receiving accreditation. This accreditation allows the programs to compare their risk-adjusted surgical outcomes with other participating MBSAQIP centers and make changes where needed, based on national comparison data.

**The Mount Sinai Health System Bariatric Collaborative** allows three of our hospital sites—The Mount Sinai Hospital, Mount Sinai Beth Israel, and Mount Sinai St. Luke’s—to share quality initiatives and best practices. The Collaborative meets biannually to discuss its respective case volume and quality/process measures. The multidisciplinary team also compares its risk-adjusted surgical outcomes to other participating MBSAQIP centers.

**The Vascular Quality Initiative (VQI®)** aims to improve the quality of vascular health care in participating centers. The VQI is administered by the Society for Vascular Surgery Patient Safety Organization (SVS PSO), which partners with M2S to provide a secure database for data collection and analysis. Participation in the VQI enables our surgeons to compare major outcomes with aggregate data from participating centers. The VQI also involves a network of regional quality groups that aim to reduce costs through participation in quality projects. The VQI is now a Health System-wide initiative in which MSBI, MSH, and MSSL participate.
It is our honor to remember fondly our beloved colleague and friend, Adrian J. Greenstein, MD, Professor of Surgery at the Icahn School of Medicine at Mount Sinai since 1968, who passed away in 2017. Through most of his long career, Dr. Greenstein maintained one of the busiest inflammatory bowel disease (IBD) surgical practices in New York City. His patients and colleagues adored him, as did the generations of residents and medical students that were fortunate enough to learn from him.

Built upon his work, the Adrian J. Greenstein IBD Database has been established to honor Dr. Greenstein’s impressive career and contributions to IBD research. This database will build on his collection and analysis of Mount Sinai IBD data that stretched from the early stages of disease discovery through to present day. By collecting and synthesizing data from the now nearly 2,000 surgical IBD cases seen annually at the Mount Sinai Health System, our surgeons hope to answer important questions about risk factors for reoperation and disease recurrence, quality of life, efficacy of new medical therapies, and much more, so that new treatment options might be created for our patients.

Since Dr. Burrill B. Crohn first described Crohn’s disease at Mount Sinai in 1932, Mount Sinai surgeons have maintained their position as leaders in the treatment of inflammatory bowel disease (IBD). Today, Mount Sinai Health System manages one of the busiest IBD programs in the United States, performing nearly 2,000 surgeries per year to help treat these chronic conditions.

Mount Sinai is one of only five sites in the United States involved in a clinical trial examining the efficacy of the Flex® Robotic System in transanal application. Once only used for head and neck surgery, exploration of using the robotic technology in a new field is an exciting prospect for both patients with rectal cancer, and the surgeons who treat colorectal conditions.

The Flex® Robotic System employs a highly maneuverable scope that can navigate a nearly 180-degree path around anatomy to reach a surgical target. This allows surgeons to reach lesions higher up in the rectum and rectosigmoid, as compared with standard robotic platforms. The scope is inserted through an existing single access point—often requiring no incision—and directed to the surgical site within the body. Once in position, flexible surgical instruments measuring 3.5 millimeters exit through a channel in the scope, allowing the surgeon to robotically operate. Improved visualization and maneuverability during endoluminal complex procedures has been an applauded benefit by colon and rectal surgeons involved in the trial.

Physicians from the Departments of Surgery, Urology-Gynecology, Urology, and Obstetrics-Gynecology have joined together to form a new, interdisciplinary Pelvic Floor Program. This comprehensive initiative aims to ease the medical journey of patients with pelvic floor disorders by providing multispecialty care from one singular team of Mount Sinai experts.
Mount Sinai surgeons continue to challenge traditional methods of treating thyroid disease, now being the only institution in the United States—and one of a few in the world—to offer three types of remote access, or “hidden-scar” approaches to thyroidectomy.

The robotic bilateral axillo-breast (BABA) approach was performed for the first time in the United States in 2015 at Mount Sinai Beth Israel. It involves four small incisions to the breasts and axilla (underarms) and is an ideal option for larger thyroid glands and select cases of thyroid cancer patients. The transoral endoscopic thyroidectomy (TOETVA) approach is the latest minimally invasive methodology, which uses an incision inside the lower lip to insert endoscopic instruments through the mouth, resulting in no scarring for patients. Finally, transaxillary endoscopic thyroid surgery uses one incision in the underarm to reach the thyroid gland from the side of the body. All three approaches offer patients reduced scars—or no scars at all—as compared with the traditional thyroidectomy procedure that utilized an open incision on the front of the neck. Additionally, Mount Sinai surgeons performed the first BABA lymph node dissection for thyroid cancer in 2017, yet another novel approach to treating benign and malignant thyroid disorders.

After a series of successful symposia hosted at Mount Sinai to demonstrate the remote access techniques, Mount Sinai surgeons are now training their international colleagues, proctoring surgeons on the TOETVA approach in Spain, Switzerland, Mexico City and many other cities.

Mount Sinai Thyroid Center Brings Multispecialty Care Downtown

The Department of Surgery is now proud to offer its unique remote access techniques in the newly created Mount Sinai Thyroid Center at Mount Sinai Union Square. Patients with any thyroid or parathyroid concern—from a minor hormonal imbalance to invasive cancer or disease—can now be seen at one multidisciplinary hub for uniquely personalized care. A team of endocrinologists partner with specialists in other related disciplines, including surgery, to create a personalized treatment plan for every patient. Same-day appointments are available, where biopsies are done on the spot as needed, and patients get their results immediately. If surgery is recommended, the patient is seen by an expert thyroid surgeon that same day. The care provided at the Thyroid Center is not simply one-dimensional—it allows patients to easily capitalize on the important health benefits of receiving multidisciplinary, coordinated care.

Visit our website to learn more
Surgeons in the Mount Sinai Division of General Surgery are leaders in New York City for the repair of hernias

Our skill in treating all types of hernias has advanced over the years, as treatment options have progressed from traditional incisional surgery to the use of minimally invasive techniques and robotic surgery. A group of Mount Sinai voluntary surgeons were the first to perform robotic surgery in an outpatient setting; today, nearly 70 percent of robotic and laparoscopic procedures can be done on an outpatient basis. Mount Sinai’s use of robotics in hernia repair allows for more precise and accurate surgery. The robot has capabilities that humans simply do not: it reports 3D images of the surgical area back to the surgeon, and can easily reach more precise locations using three arms, which rotate a full 360 degrees, allowing surgeons dexterity that was once impossible. The accuracy of robotic surgery leads to reduced complications, less pain, and shortened recovery time for patients. It also provides significant benefits to the surgeon, allowing regained control of the surgical space and easy transversal between the four quadrants of the body.

The Mount Sinai Health System continues to run one of the largest and busiest bariatric programs in the country, performing approximately 1,400 weight loss operations per year. Established in the 1990s, our program was changing the shape of weight-loss surgery a decade before other programs started. Mount Sinai surgeons were the first in the world to perform a laparoscopic duodenal switch and a laparoscopic sleeve gastrectomy, both in 1999. Our program has built on our early adaptation of weight-loss surgery and progressed to offer a more multidisciplinary approach to patients. Not surprisingly, most of NYC’s bariatric surgeons have been trained wholly or in part at Mount Sinai. Additionally, we offer expertise that goes beyond the operating room by providing more patient support groups than any other program in the NY metropolitan area.

Visit our website to learn more
A New Treatment for Pediatric Cancer

Surgeons at Mount Sinai have completed the first hyperthermic intraperitoneal chemotherapy (HIPEC) case for a pediatric cancer patient in the Northeast.

The process, which combines surgery with heated chemotherapy to better locate, treat, and abolish cancerous tumors, had only been available at a handful of locations in the United States—and only to adults—until recently. The first patient is an 11-year-old with a desmoplastic small round cell tumor (DSRCT), a cancer seen in children and adolescents. Mount Sinai is one of only two centers in the entire United States to routinely offer HIPEC as part of the treatment for various forms of intra-abdominal cancer. Additionally, Mount Sinai is one of only two hospitals in Manhattan with a dedicated full-time faculty member specially trained in pediatric surgical oncology.

The advantages of HIPEC are immense. The procedure allows for high doses of chemotherapy; enhances and concentrates the efficacy of chemotherapy within the abdomen; decreases chemotherapy exposure to the rest of the body; improves the rate of chemotherapy absorption, resulting in increased susceptibility of cancer cells (including those that are yet undetected); and reduces the typical side effects of chemotherapy for patients.

Responding to the lack of hospitals providing such a revolutionary treatment option, Mount Sinai established what is today one of the busiest HIPEC programs in the country. Faculty have performed more than 500 adult HIPEC procedures since the program’s creation in 2007, a number that will surely grow as pediatric cases are included.

Creation of Chest Wall Anomaly Program

A unique team of surgeons have joined forces to create a first-of-its-kind Chest Wall Program at Mount Sinai. The program will address both pediatric and adult chest wall anomalies (CWAs), using surgery and nonsurgical means, as appropriate.

Developmental anomalies of the sternum and ribs may occur in children and adolescents and lead to either a protruding chest (pectus carinatum) or sunken chest (pectus excavatum), which in turn may affect heart and lung function. The conditions may also cause weighty psychosocial effects, especially in adolescents and young adults.

The Program’s specialists work closely with the patient’s primary care physician and any appropriate specialists needed to devise a comprehensive care plan, drawing on a network of in-house, world-class colleagues from the Mount Sinai Health System and Kravis Children’s Hospital.

Along with the clinical treatment of CWA, a research program to delineate the genetic underpinning of these disorders is under way.
Mount Sinai First to Offer Complete Care to Transgender Patients

In 2016, Mount Sinai became the first institution in New York City to offer genital reassignment surgery. To further provide comprehensive care for the transgender community, Mount Sinai established the Center for Transgender Medicine and Surgery (CTMS)—one of the first programs in the United States to offer broad, multispecialty care to this patient population. CTMS provides transition-related surgeries, plus primary care, endocrine, psychiatry, gynecology, urology, social work, and nursing services, as well as behavioral health care services. CTMS staff support patients through each stage of their journey, from initial assessment and screening, to hormonal therapy, surgery, and post-transition care.

The Center’s first surgical procedure, a male-to-female genital reconstruction called vaginoplasty, was completed in 2016 with other procedures quickly following, including metoidioplasty for female-to-male genital transitions, and chest reconstruction surgery for transgender men and breast augmentation for transgender women, known as “top surgery.” To date, the team has performed more than 400 operations, roughly seven surgeries per week, making them not only one of the first institutions in the country to offer these surgeries, but now one of the busiest.

Visit our website to learn more.

Mount Sinai Offers New Robotic Surgery for Breast Cancer Survivors

Mount Sinai is the first institution in the New York metropolitan area to offer robotic assisted breast reconstruction. The da Vinci® robot, used widely in other surgical fields, is new to breast reconstruction but is a wonderful option for patients. The best candidates are patients who need to recruit tissue from their own body after they’ve had radiation treatment. With the da Vinci robot, small incisions are made in the underarm, allowing surgeons to separate the latissimus muscle from the back and rotate it forward to create a new breast mound on the chest wall. Interestingly, because the latissimus muscle naturally has so much blood supply, it can even reverse some radiation damage, such as softening of the tight skin on the chest, thus allowing for tissue expansion or permanent implant placement. Perhaps the most appreciated benefit to patients is the drastically smaller scars the robot leaves—only 5-8 centimeters per scar, as compared with the traditional incision length of 15-45 centimeters. Patients also benefit from fewer potential complications, less pain, and quicker functional recovery. Turn to page 13 to read Maria’s story.

Visit our website to learn more.

Opening of New Suite

The newly designed plastic surgery suite, designed by Kliment Halsband Architects, offers comfort, style, and the latest technology to reinvent the office visit experience. The suite offers advanced technology, built solely for Mount Sinai by Microsoft, which will modernize the way surgeons and patients communicate in-office. Additionally, select patients will also be able to videoconference with their doctor from the comfort of their home, using the new telemedicine capabilities built into the space.

Plastic and Reconstructive Surgery
Robotic Surgery Program Launch

Four surgical oncologists have launched the first robotic surgery program at Mount Sinai St. Luke’s. These surgeons are now routinely performing complex robotic procedures to treat cancers of the pancreas, liver, colon, and stomach, having performed the first robotic colon resection for colon cancer at that location, along with the first completely robotic anatomic liver resection, as described in the feature to the left.

The robotics program was established to not only offer patients the most technologically advanced surgical care possible, but also to ensure the best overall outcomes for patients. Traditional “open” surgery often requires lengthy inpatient stays, large scars, and lengthy recovery times for patients. Robotic surgery minimizes each of these concerns, allowing for shorter hospital stays, extremely minimized scarring, and a much quicker recovery time.

A Mount Sinai Health System First

Surgeons in the Division of Surgical Oncology at Mount Sinai St. Luke’s performed the first completely robotic anatomic liver resection—a first-of-its-kind procedure for the Mount Sinai Health System. Using the Xi® robot, the latest model of the da Vinci® robot, built by Intuitive Surgical®, two surgeons maneuvered a camera and three robotic arms from a dual-console feature, allowing for simultaneous and seamless collaboration between the surgeons.

Prior robotic liver procedures had been limited to minor biopsies or hybrid procedures that combined robotic, laparoscopic, and open surgery techniques to fully complete a case. With the da Vinci Xi robot, patients no longer have to manage the effects of such procedures. Four minuscule incisions are made with the Xi, leaving the patient with almost no post-op pain (which limits the amount of pain medication required), and a remarkably rapid recovery time of less than 24 hours. A normal length of stay after a liver resection is usually four to five days.

Surgeons have since expanded their use of the Xi robot, performing robotic surgery for stomach, pancreas, and gall bladder oncology cases. Patient outcomes remain impressive with the robot, as compared with traditional laparoscopic or open surgery.

Personalized Care

Every week, our team of surgical oncology experts meets to discuss every patient we treat, to plan the best course of action for each case. Up to 25 surgical oncologists from the Mount Sinai Health System, plus affiliates in New Jersey and Florida, converge with medical oncologists, interventional radiologists, radiation oncologists, gastroenterologists, pathologists, and others, to discuss each oncology case that will involve surgical intervention. Team members pool their individual expertise to understand each patient’s unique medical history and current condition, and map out the best course of action, resulting in personalized cancer treatment for each patient. Learn more about our personalized care on page 13.
Known as the father of vascular microsurgery, Julius H. Jacobson, II, MD, spent 54 years of his illustrious career at Mount Sinai—35 of them serving as Chief of Vascular Surgery. He broke down barriers to clinical innovation by developing the “diploscope,” the first microscope that allowed the surgeon and first assistant to view the operative field simultaneously—an invention that now resides in a collection of the Smithsonian Institution in Washington, D.C.

Bridget O’Brien, Marketing Director for the Department of Surgery, spoke with Dr. Jacobson’s daughter, Wendy Jacobson, MD, Adjunct Professor of Psychiatry and Behavioral Sciences at Emory University School of Medicine, and Training and Supervising Analyst at Emory University Psychoanalytic Institute, to hear how she believes her father was able to break down so many barriers to collaboration and innovation.

B.O.: Dr. Jacobson has been called the “father of vascular microsurgery.” Was he proud of that moniker?

W.J.: Oh yes, that meant the world to him. I think he considered it his crowning achievement, though it happened early in his career. I remember when he was in full academic mode around 1959 at the University of Vermont and published his seminal paper on the anastomosis of a vessel using a microscope. I was probably only five or six years old, but I still remember the excitement surrounding that. I think that was his period of greatest achievement as far as conducting research in microsurgery, and led to his being dubbed the “father” of that specialty.

B.O.: Our theme of this year’s report is “Breaking Barriers.” What do you think he’d say if he knew we were labeling him a “barrier breaker?”

W.J.: I think he’d agree with that. I’ve said before that his focus has always been on innovation, collaboration, and invention. You can’t champion those ideals without breaking down a few barriers.

B.O.: What kind of unique barriers do you think your father faced as a young surgeon and also later, as a mature surgeon? What do you think his main challenges were, at those two very different times in medicine?

W.J.: A main challenge for him as a young surgeon would have been literally having the tools. He was trying to operate in smaller and smaller spaces—down to the microscopic level—but had to invent his own surgical tools in order to advance the field.

B.O.: That likely explains how he was able to challenge those mechanical barriers so confidently.

W.J.: Exactly. Many of his most innovative ideas came out of pure necessity—to create
Breaking Barriers for Generations continued

the tools he needed in order to do the best job for his patients. Later in his career, his challenge was to decide how to spend his time—full-time academic research versus clinical practice. Plus, given all his interests and wanting fully to utilize his creativity, which spans many fields, he had to decide where to focus his time, energy and attention.

B.O.: Dr. William Shaw described microsurgery as a unique marriage of the “old art” and the “new science.” How do you see that “marriage” present itself in today’s world of medicine?

W.J.: My father was fascinated to see the progression of interventional procedures. He used to remark on the younger generation’s use of video games and how those games shaped the way their minds and brains worked. He saw that it was reshaping their physicality as well—their hands could perform those intricate, technical procedures because of how much they had played these games in their youth. He would have loved to explore that territory further. I see that as his way of combining “old art and new science.” He would have been happy to be put out of the “old business” and focus on the way surgery was evolving.

B.O.: Your father and his wife Joan are known as staunch philanthropists. Why do you think they have been inspired to give so generously to Mount Sinai?

W.J.: Basically, I think they feel as though they had a great deal of good fortune and wanted to give back. They are very much citizens of the world, so their goal has been to give to all parts of the world in whatever ways they could. Jewish causes also meant a great deal to them. I think my father experienced his share of anti-Semitic attitudes, given the era of his training. He became the first Jewish Chief Resident at Columbia-Presbyterian, which certainly was a way of breaking barriers at the time. So I think when he got to Mount Sinai, it felt simpatico and truly became his professional home. He felt like he got so much from Mount Sinai, and now he has the opportunity to give back.
Tatuleka “Ruth” Shelomith, a 2-year-old from Uganda, was recently given the gift of hearing thanks to a team of physicians and staff at the Mount Sinai Health System.

Ruth is from a small Ugandan village of 1,000 people, and has been deaf since birth. Experts told her family that installing a cochlear device was the only way Ruth might ever be able to hear.

While commonplace in the United States, cochlear implant surgery is rarely done in the developing world, and her family could not raise the necessary funds for the surgery. Luckily, Ruth’s family met Michael Marin, MD, Surgeon-In-Chief at the Mount Sinai Health System, who was able to arrange for Ruth’s surgery to be done pro bono at Mount Sinai.

With the help of his colleagues in Otolaryngology, Audiology, and Speech/Language Pathology, Ruth was given the gift of sound. It is because of the generous philanthropic gifts received by the Department of Surgery that physicians like Dr. Marin are able to bestow such priceless gifts to children from all walks of life.

Maria was just 27 years old when she learned she had breast cancer—and even worse, the cancer had spread to her lymph nodes and lungs. She bravely underwent a mastectomy, after which she chose to have her right breast reconstructed. Earlier radiation treatments, however, made her skin very tight and difficult to expand for the breast reconstruction. Her doctors considered taking tissue from her abdomen or thighs, but her thin frame did not offer much tissue to spare.

The final option was to take the latissimus muscle from her back and rotate it under the skin to form a softer breast mound on her chest wall, but that surgery leaves a very large scar. That’s when she met with surgeons at Mount Sinai where they agreed to use a new robotic approach to her breast reconstruction. Using the da Vinci® robot, surgeons made small incisions in Maria’s armpit to separate the latissimus muscle from the back and move it to the chest, thereby performing the first robotic breast reconstruction in New York State (see page 9).

Since starting to use the robot for this type of procedure, surgeons have found that patients (including Maria) are typically left with much smaller scars, fewer potential complications, less pain, quicker functional recovery, and higher overall satisfaction.

Visit our website to learn more
In addition to the seven main hospitals and one academic center of the Mount Sinai Health System, we also see patients at nearly 40 offsite locations across the Tri-state Area. The blue circles represent our growing network of offsite locations. Our goal is to provide expert Mount Sinai surgical services to as many communities as possible.
Breaking Geographical Barriers: The Kyabirwa Surgical Facility in Uganda

More than five billion people worldwide do not have access to safe or affordable surgical care. That lack of care is responsible for upwards of 17 million deaths per year, meaning nearly 30 percent of the world’s population will die from diseases that are surgically correctible.

Often, the most commonly cited reasons for not providing surgical care to underserved areas are cost and ease of operations; the practice of surgery and organization of providing surgical services are seen as too expensive and complicated to undertake.

The Mount Sinai Global Surgery Team, part of the Department of Surgery at Mount Sinai, is directly challenging those misconceptions by building the Kyabirwa Surgical Facility (KSF), a first-of-its-kind ambulatory surgical facility in Kyabirwa, Uganda. The surgical care provided at the KSF will completely re-shape how Kyabirwa residents, and those in neighboring villages, receive health care.

Research shows that 60 percent of all surgery done in the United States is ambulatory, but more than 80 percent of surgical costs are spent on inpatient procedures; the more complicated surgeries that require more refined surgical skills, equipment, and facilities. Considering this data, the primary focus of the KSF will be to provide outpatient surgeries to the deeply underserved Kyabirwa community, where even the simplest of operations are not available. Initial surgical procedures available at KSF will include: hernia repair, appendectomy, breast disorder surgery, thyroid surgery, cataract removal, colonoscopy, wound management, burn treatment, oral surgery, circumcision, hemorrhoid removal, abscess drainage, and biopsy of cancers. All of these operations can safely and effectively alter and preserve life. Over time, as experience, support, and funding opportunities grow, surgical offerings may be expanded to include more complex procedures.

The KSF is a scalable prototype that has the potential to shift the paradigm for providing international surgical care. The self-sustaining structure has its own water and power sources, and will act as a major employer in the community it serves, being staffed by Ugandan surgeons supported by on-site teams from Mount Sinai.

Digital interface between KSF and the campuses of the Mount Sinai Health System will be an integral feature of the partnership. This technology will allow virtual, international interaction between surgeons and staff for presurgical evaluations, intraoperative consultations, real-time evaluation of ongoing surgical therapy, and assistance in the management of complications.

Overseas Rotation for General Surgery Residents and Fellows

Third-year general surgery residents spend one month on a clinical rotation at a rural hospital in the Dominican Republic. These senior surgical residents operate in an environment that is culturally and socioeconomically different from their own. They learn to observe, appreciate and, ultimately, incorporate valuable skills and lessons into patient care. This opportunity also allows senior residents to contribute to the global community as humanitarians.

Visit our website to learn more
2016-17 Graduated residents and their fellowship placements:
• Alexandra Argiroff
  Minimally Invasive and Bariatric Surgery, Montefiore Medical Center
• Dustin Cummings
  Minimally Invasive Surgery, University of Washington–Seattle
• Simon Fitzgerald
  Trauma and Critical Care, Johns Hopkins Medical Center
• Denise Lee
  Endocrine Surgery, Columbia University
• Anya Romanoff
  Breast Surgical Oncology, Memorial Sloan-Kettering Cancer Center
• Maria Widmar
  Colorectal Surgery, Weill Cornell Medical College
• Matthew Wilkinson
  Transplant Surgery, University of Pennsylvania

PLASTIC AND RECONSTRUCTIVE SURGERY RESIDENCY PROGRAM
Our residency program was created in 1952 by world-renowned surgeon and educator Arthur Barsky, MD. Today, we are proud to have one of the most prestigious plastic surgery residency training programs in the country, where our residents are consistently accepted into the most competitive fellowship programs.

2016-17 Graduated residents and their fellowship placements:
• Eric Jablonka
  University of Pennsylvania
• Andreas Lamelas
  Beth Israel/Deaconess

VASCULAR SURGERY RESIDENCY AND FELLOWSHIP PROGRAM
The Mount Sinai Vascular Surgery Residency and Fellowship Program ranked in the top 15 out of more than 5,000 hospitals according to the latest U.S. News & World Report.

2016-17 Graduated residents and their employment placements:
• Christine Chung
  PGY 1-5 Resident, Winthrop University Hospital

• Daniel Han
  PGY 1-5 Resident, The Mount Sinai Hospital
• Mohsen Bannazadeh
  PGY 6-7 Fellow, Stonybrook School of Medicine
• Daniel Fream
  PGY 1-5 Resident, Cardiovascular Care Group
• Reid Ravin
  PGY 1-5 Resident, Mount Sinai West

SURGICAL ONCOLOGY RESIDENCY AND FELLOWSHIP PROGRAMS
Our highly competitive program offers residents and fellows the chance to develop both the technical skills necessary for complex surgical procedures and the nuances of the unique, multidisciplinary care necessary for treating cancer patients.

2016-17 Graduated residents and their employment placements:
• Matthew Dong, MD, MPH
  Assistant Professor, Surgery, Icahn School of Medicine at Mount Sinai
• Timo Hakkarainen, MD, MS
  General and Endocrine Surgeon, Evergreen Hospital, Seattle
• Shanel Bhagwandin, DO, MPH
  Surgical Oncology Attending, Jupiter Medical Center, FL

LAPAROSCOPIC AND ADVANCED GASTROINTESTINAL SURGERY FELLOWSHIP PROGRAM
Founded in 1992, Mount Sinai formed one of the first formal clinical training programs for minimally invasive surgery in the United States. Today, we offer the one-year position to only one highly qualified physician. We boast one of the nation’s most clinically active programs in which our laparoscopic fellows are exposed to a diverse spectrum of minimally invasive procedures and techniques.

2016-17 Graduated fellow and employment placement:
• Matthew L. Dong, MD
  Mount Sinai Health System

BARIATRIC FELLOWSHIP PROGRAM
One fellow is accepted into this prestigious program per year. The fellow must participate in at least 100 weight-loss operations of varying procedure types. At the conclusion of the program, the fellow will have the ability to investigate and diagnose conditions, recommend therapeutic options, perform operative procedures, and provide all other aspects of care, including preoperative, perioperative, and late postoperative care.

2016-17 Graduated fellows and their employment placements:
• Saurabh Sharma, MD
  Mather Hospital, Port Jefferson, NY
• Napoleon Cieza Rubio, MD
  Public access care in Wyoming

COLON AND RECTAL SURGERY FELLOWSHIP PROGRAM
This competitive one-year fellowship covers all aspects of colon and rectal surgery at the busy Mount Sinai Hospital location. Fellows spend the entire year working with full-time colon and rectal surgeons, performing a variety of procedures, from traditional open surgery, to more modern techniques, such as laparoscopic and robotic surgery. The large case volume provided at Mount Sinai guarantees the fellow is exposed to the full spectrum of colon and rectal disorders.

2016-17 Graduated fellow and employment placement:
• Ahmed Al-Khamis, MD
  Second fellowship at Lutheran General Hospital, Chicago, IL

CRITICAL CARE MEDICINE FELLOWSHIP
The Critical Care Medicine Fellowship at The Mount Sinai Hospital is recognized as one of the oldest critical care fellowships in the nation. Roughly 20 percent of new entrants into the fellowship, all of whom are board certified, have already completed fellowships in other disciplines.

2016-17 Graduated fellows and their areas of employment:
• Catherine Allen, MD
  New York, Intensivist
• Daisi Choi, MD
  Virginia, Intensivist
• Darshan Dhingani, MD
  California, Pulmonary and Critical Care Medicine
• Meenakshi Ghosh, MD
  Nebraska, Pulmonologist/Intensivist
• Yordanos Habtegebril, MD
  Texas, Pulmonologist/Intensivist
• Jehanez Khan, MD
  New York, Critical Care, Pulmonary and Sleep Medicine
• Kristina Rathmell, MD
  Texas, Intensivist
• Francisco Salgueiro, MD
  Europe and the United States

NEWLY CREATED: TRANSGERDER SURGERY FELLOWSHIP PROGRAM
Bella Avanessian, MD, is the first fellow to be accepted into the new transgender surgery fellowship training program at Mount Sinai – the first and only program to train surgeons specifically in gender reassignment surgeries. The one-year program will receive a new fellow in July 2018, allowing the transgender surgical program to multiply its expertise in this increasingly popular field of surgery.

Mount Sinai Beth Israel graduating residents and their fellowship placements:
• Colon and Rectal Surgery: Carmen Fong, MD, Stony Brook Medicine/Winthrop University Hospital Program
• Breast Oncology: Anjuli Gupta, MD, Duke University Medical Center
• Plastic Surgery: Bianca Molina, MD, The Ohio State University Wexner Medical Center
• Minimally Invasive and Bariatric Surgery: David Pechman, MD, University Hospital for Albert Einstein College of Medicine/Montefiore Health System
• Colon and Rectal Surgery: Paul Strombom, MD, Cleveland Clinic Florida

Mount Sinai Beth Israel graduating fellow and her employment placement:
• Breast Surgery Fellow: Vanessa Prowler, MD, Lakeland Regional Health

RESEARCH:
In 2017, the Department of Surgery Research Program finalized centralization efforts across all Mount Sinai Health System sites, resulting in more effective and efficient access to research resources and opportunities. The number of industry-sponsored trials, investigator-initiated grant applications, and associated funding opportunities significantly increased. Additionally, a new pilot research grant program was created, which aims to provide faculty with the support necessary to elevate promising research initiatives in preparation for next-step extramural funding opportunities. See page 3 for more
Gratitude, we honor those supporters who have attached their family legacy to an endowed chair in the Department of Surgery. Generous and thoughtful gifts donated by visionary supporters of the principles of healthcare, research, education, and patient care, help ensure that not only the Department of Surgery, but the Mount Sinai Health System and Icahn School of Medicine at Mount Sinai are able to succeed and compete on a national level. The true weight of endowed professorships lies in the motivation of the individual who understands that providing expert medical care to our communities is a critical component to building a strong society. With our gratitude, we honor those supporters who have attached their family legacy to an endowed chair in the Department of Surgery.

**Building a Legacy through Endowment**

An endowed chair is a revered honor in the world of academic medicine. These prestigious chairs are used at Mount Sinai to reward our finest faculty members and to recruit and retain top professors. Generous and thoughtful gifts donated by visionary supporters of the principles of healthcare, research, education, and patient care, help ensure that not only the Department of Surgery, but the Mount Sinai Health System and Icahn School of Medicine at Mount Sinai are able to succeed and compete on a national level. The true weight of endowed professorships lies in the motivation of the individual donor who understands that providing expert medical care to our communities is a critical component to building a strong society. With our gratitude, we honor those supporters who have attached their family legacy to an endowed chair in the Department of Surgery.

**Stanley Edelman, MD Professor of Surgery**

2008 — Henry Nias Foundation
Chairholder: Celia Divino, MD
The Nias Foundation established this professorship in Dr. Stanley Edelman's name. Dr. Edelman was a student, resident, fellow, and faculty member at Mount Sinai who enjoyed a surgical career that spanned close to four decades. With the endowment of this chair, Dr. Edelman was able to fuse his passion for teaching with philanthropy to advance the cause of medical education at Mount Sinai.

**Eugene W. Friedman, MD Professor of Surgical Oncology**

2010 — Leon Hess
Chairholder: William Inabnet, MD
Through the Hess Family Foundation, the late Leon Hess endowed the Eugene W. Friedman, MD, Professor of Surgical Oncology in honor of Dr. Eugene Friedman. An innovator in the use of lasers in cancer surgery, Dr. Friedman was the former Chief of the Division of Head and Neck Surgery at Mount Sinai, the institution he was affiliated with for more than 50 years.

**Alfred and Florence Gross Professor of Surgery**

2014 — Alfred and Florence Gross
Chairholder: George Todd, MD
The Alfred and Florence Gross Professor of Surgery, established in 1977, was named for real estate developer and investor Alfred Gross and his wife Florence. Longtime members of the Mount Sinai community, the late Mr. and Mrs. Gross' commitment to the advancement of clinical research and medical education is manifest not only in this Chair, but also in their support of various institutional initiatives, including the work done in the Department of Surgery.

**Dr. Julius H. Jacobson II Chair in Vascular Surgery**

2007 — Dr. Julius H. Jacobson II and Joan L. Jacobson
Chairholder: Michael L. Marin, MD
Dr. Julius Jacobson began working at Mount Sinai in the 1960s and was Chair of Vascular Surgery for almost 35 years. Among his many accomplishments was the development of Mount Sinai's hyperbaric chamber. He and his wife Joan are sincere philanthropists, and have supported various areas of Mount Sinai's research and clinical programs for many years.

**Mount Sinai Professor in Vascular Surgery**

2017 — Institutionally established
Chairholder: James F. McKinsey, MD
The Mount Sinai Professorships were established in 2007 by the Mount Sinai Boards of Trustees to honor the achievements and contributions of some of the Icahn School of Medicine at Mount Sinai’s most outstanding faculty. A total of nine Mount Sinai Professorships have been awarded to date.

**Henry Kaufmann Professor of Surgery**

2008 — Henry Kaufmann Foundation
Chairholder: Myron Schwartz, MD
The late Henry Kaufmann was one of the founders of the iconic Pittsburgh department store, Kaufmann's, that is today a part of Macy’s, Inc. In 1929, he created the Henry Kaufmann Foundation, which established the Henry Kaufmann Hyperbaric Unit at Mount Sinai in 1964 and two years later endowed a Chair that today is known as the Henry Kaufmann Professor of Surgery. His generous endowment continues to support Mount Sinai's efforts in developing a high standard of excellence in medical education, service and research.

**Charles Miller, MD Professor of Surgery**

2012 — Multiple Donors
Chairholder: Sander Florman, MD
Charles Miller, MD, completed medical school, residency, and a fellowship at Mount Sinai, ultimately becoming the Founder and Director of the Recanati/Miller Transplantation Institute. To celebrate and honor Dr. Miller’s accomplishments in the field of transplant surgery, this endowed professorship was established through the generous support of Joanna Adler, James J. Chin, Mount Sinai Trustee Robert E. Rubin and family, and other members of the Mount Sinai community.

**Salky Professor of Surgery**

2015 — Grateful patients of Dr. Barry Salky
Chairholder: Daniel M. Herron, MD
The Salky Professor of Surgery was established in 2015 through the generosity of Dr. Barry A. Salky’s grateful patients in recognition of his illustrious tenure at Mount Sinai. Dr. Salky transformed many highly invasive surgical procedures into minimally invasive operations. Dr. Salky joined Mount Sinai as a resident and became the first Chief of the newly established Division of Laparoscopic Surgery. Dr. Salky held two endowed chairs at Mount Sinai: the Robert and Evelyn Turrell Professor of Endoscopic Surgery from 1992 to 1996, and the Franz Sichel Professor of Surgery from 2004 to 2009, before retiring from surgical practice in 2018.

**Franz W. Sichel Professor of Surgery**

2010 — The Franz W. Sichel Foundation
Chairholder: Peter Faries, MD
Franz W. Sichel was born in Mainz, Germany, in the late 1890s, and was seventh generation in a line of professional European vintners. Throughout his career he was constantly engaged in philanthropic enterprises, which led to the establishment of the Franz W. Sichel Foundation in 1962. The Foundation's longtime relationship with Mount Sinai yielded grants for fellowships, research and, ultimately, the Franz W. Sichel Professor of Surgery, underscoring his exceptional generosity and interest in health care.
To learn more about any of the programs or initiatives in this publication, or other ways in which you can help support the Department of Surgery, please contact Jessica Shaffer, Senior Director of Development, by phone at 646-605-8761, or by email at jessica.shaffer@mountsinai.org.

For further details and updates on any of the features in this report, please visit our new website: mountsinai.org/surgery