



The Milton and Carroll Petrie
**Department of
Urology**

**Minimally Invasive Surgery and
Advanced Procedures at Mount Sinai**

Mount Sinai Doctors
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Minimally Invasive Surgery and Advanced Procedures at Mount Sinai

- Office-Based and Ambulatory Procedures
- Endoscopic and Percutaneous Procedures
- Laser Procedures
- Bloodless and Complex Procedures
- Robot-Assisted and Laparoscopic Surgery:
Small and Single Incisions



Michael A. Palese, MD

*Chairman, Sol and Margaret Berger, Department of Urology
Mount Sinai Beth Israel and Mount Sinai Downtown*

*Professor, Department of Urology
Icahn School of Medicine at Mount Sinai*

*Director of Minimally Invasive Surgery
Department of Urology, the Mount Sinai Health System*

Overview

Surgical advances using innovative technology and minimally invasive techniques have allowed urologists to transition away from operations performed through large, open incisions to safer, less painful approaches. At Mount Sinai, our surgeons offer state-of-the-art robot-assisted, laparoscopic, and endoscopic procedures for all urological diseases. Complex and morbid operations have now become routine, short-stay procedures due to the adoption of minimally invasive approaches. Shorter hospital stays combined with smaller incisions provide a better patient experience and ultimately better surgical outcomes.

The main benefits of minimally invasive surgery include smaller incisions with less scarring, reduced blood loss, faster recovery with less pain, shorter hospital stays, and lower risk of infection. Diseases of the kidney, adrenal, ureter, bladder, and prostate can all benefit from treatment via minimally invasive surgery. Patients with unique and complicated medical conditions, as well as geriatric patients, are two additional populations that benefit significantly from a non-invasive surgical approach.

The Minimally Invasive Surgery team at Mount Sinai led by Michael A. Palese, MD, performs surgery and sees patients primarily at Mount Sinai Beth Israel, located at Union Square, and The Mount Sinai Hospital, on the Upper East Side. Dr. Palese and his team have been honing their surgical methods over the past two decades. They constantly research and develop new minimally invasive techniques and are leaders in the American Urological Association, the largest organization of urologic physicians in the United States.

The Mount Sinai Health System is an integrated health care system that is internationally acclaimed for its excellence in research, patient care, and education across a range of specialties. As part of the Department of Urology, the Minimally Invasive Surgery group of doctors have access to additional specialists in the fields of male and female incontinence, sexual function and infertility, men's health, and interactive urology and holistic medicine.



About Dr. Palese

Michael A. Palese, MD, is a Professor of Urology in the Icahn School of Medicine at Mount Sinai and also Chair of the Sol and Margaret Berger Department of Urology at Mount Sinai Downtown and Beth Israel Medical Center. He is the Director of Minimally Invasive Urologic Surgery for the Mount Sinai Health System and specializes in kidney, ureter, adrenal, bladder and prostate disease. Dr. Palese is one of a handful of surgeons in the United States who is fellowship trained in open, laparoscopic, and robot-assisted surgery.

Dr. Palese performed the first robot-assisted radical nephrectomy, robotic partial nephrectomy, robotic donor nephrectomy, robotic nephro-ureterectomy, robotic adrenalectomy, and robotic ureteral reimplant and reconstruction at The Mount Sinai Hospital. He is also a leading authority on robotic single-port kidney surgery. Dr. Palese holds several patents for the design of novel surgical devices.

Dr. Palese is the author of multiple book chapters and more than one hundred articles and abstracts. He is a reviewer and consultant for periodicals such as the *Journal of Urology*, *Urology*, *Urologic Oncology* and *Journal of Endourology*. He also serves on the Medical Advisory Board to the New York Giants and the National Kidney Foundation of Greater New York. In addition, he is on the board for the New York section of the American Urological Association.

Dr. Palese frequently lectures and teaches at national and international medical conferences. He has been a faculty member for the annual Basic Laparoscopy Course sponsored by the American Urological Association in Houston, Texas. Dr. Palese has been featured in the news media on multiple occasions including the *New York Times*, *Wall Street Journal*, *New York Daily News*, CBS, CNN and WPIX-TV. He is included in the Castle Connolly Medical LTD *America's Top Doctors* and Top Doctor for Cancer edition; the New York Times published *Superdoctors*; and *New York Magazine's* annual Top Doctors issue.

He graduated from Cornell University in 1993, and received his medical degree from the Mount Sinai School of Medicine in 1997. He completed his general surgery and urology residency at the University of Maryland Medical Center, and performed research at Johns Hopkins Hospital. Dr. Palese finished a fellowship in robotic and laparoscopic surgery at Weill Cornell Medical College of Cornell University in 2004. He has been a Mount Sinai physician since 2004.

Office-Based and Ambulatory Procedures

Treating BPH (Benign Prostatic Hyperplasia)

Benign prostatic hyperplasia (BPH) is a common condition as men get older. An enlarged prostate gland can cause uncomfortable urinary symptoms, such as blocking the flow of urine out of the bladder. It can also cause bladder, urinary tract, or kidney problems.

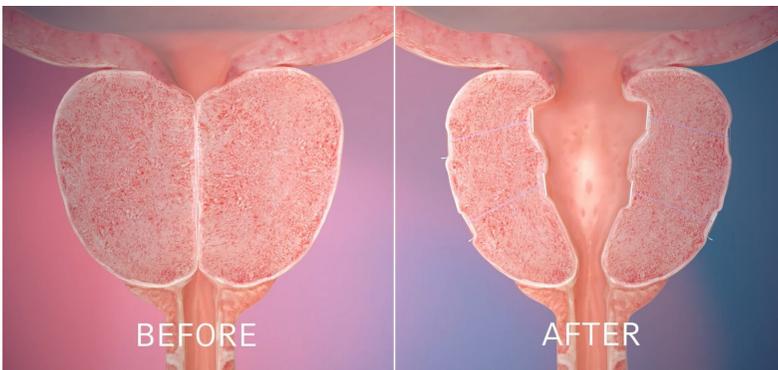
There are various Minimally Invasive Surgical Therapies (MIST) available to treat BPH. Dr. Palese, Dr. Grotas, and Dr. Shah are physicians who perform these procedures. Please see the chart below for a list of the therapies, how they work, and why they are recommended for use on patients.



**Sovrin M. Shah, MD,
FPMRS**
*Assistant Professor of
Urology*



Aaron Grotas, MD
*Medical Director, Mount Sinai
Downtown, Union Square
Assistant Professor of Urology*



Large Gland Rezum

Rezum is a minimally invasive surgical treatment that utilizes convective water vapor thermal energy to treat benign prostatic hyperplasia or BPH. In patients with large prostates, Rezum safely and effectively provided short-term and long-term symptomatic relief as well as durable improvement in voiding function. Further efforts will explore the possibility of expanding inclusion criteria for Rezum. Dr. Palese and his team will continue to study new indications using this technology.



Type of MIST	Mechanism of Action	Prostate size	Anesthetic	Advantages
Aquablation	High pressure saline dissects prostatic tissue	<80 gm	General anesthesia	Real time ultrasound, autonomous robot, heat free waterjet
BoNT-A (Intraprostatic Botulinum Injections)	AcH inhibition decreases growth of prostatic tissue	N/A	Local anesthesia and sedation	Low risk of sexual side effects, can be done in office
Intraprostatic stents	Endoscopic stents open the bladder outlet	<80 gm	Local anesthesia and sedation	Low risk of sexual side effects, can be done in office
PAE (Prostate Artery Embolization)	Injection of microspheres impede prostatic arteries	>30 gm	Local anesthesia and sedation	Nonsurgical angioembolization, low risk of sexual side effects
Rezum	Thermal energy generated by water vapor causes prostatic cell necrosis	80 gm+	Local anesthesia and sedation	Low risk of sexual side effects, can be done in office
TIND (Temporary Implantable Nitinol Device)	Local ischemic necrosis remodels bladder neck and prostatic urethra	<60 gm	Local anesthesia and sedation	Preserves sexual and ejaculatory function, can be done in office
Urolift	Transprostatic permanent implant widens prostatic urethra	<80 gm	Local anesthesia and sedation	Preserves sexual and ejaculatory function, can be done in office

MIST: minimally invasive surgical therapies, BoNT-A: botulinum neurotoxin-A, TIND: temporary implantable nitinol device, PAE: prostatic artery embolization, N/A: not available, UTI: urinary tract infection

Endoscopic and Percutaneous Procedures

Traditional surgery requires a large incision, but percutaneous procedures use special catheters and devices to treat the problem through one or more small punctures in the skin.

Endoscopic procedures are a subset of percutaneous procedures that use one or more small puncture sites and a thin video instrument with a small camera at the tip. This scope transmits a picture of the internal organs on a video monitor to give the surgeon a close-up view of the surgical area as the surgeon performs the procedure. Very small incisions and a much quicker recovery time are some of the advantages of percutaneous procedures.

Minimally Invasive Procedures for Kidney Stones

Kidney stones are hard deposits made from minerals such as calcium or waste products such as uric acid. They start small, but they can grow bigger as more minerals stick to them. Some kidney stones often pass on their own without treatment. Other stones that are painful or that get stuck in your urinary tract sometimes need to be removed with surgery. You might have a procedure or surgery to take out kidney stones if the stone is very large and can't pass on its own, you're in a lot of pain, the stone is blocking the flow of urine out of your kidney, or you have had many urinary tract infections because of the stone.

Currently there are four minimally invasive treatments that can be used on your kidney and ureteral stones:

- Shock wave lithotripsy (ESWL)
- Percutaneous nephrolithotomy (PCNL)
- Ureteroscopy and laser lithotripsy
- Robotic pyelolithotomy



Named after the shape of antlers, staghorn calculi are large stones that fill part or all of the branched kidney collecting system. Robotic pyelolithotomy is an excellent option for removal of these kinds of stones.



Minimally Invasive Surgery and Ureteral Stricture Disease

The ureter is the tube that drains urine from the kidney down to the bladder. In some conditions, a portion of the ureter can be narrowed, which is called a stricture. This can be congenital, or the result of scarring from previous surgery, urinary stones, or other causes. Ureteral stricture often requires complex reconstruction to restore the ureter to its normal drainage pathway. Alternative drainage methods may be used, such as tube drainage from the kidney (nephrostomy) and ureteral stenting, to protect the kidney.

Our reconstructive expertise emphasizes minimally invasive approaches, including robotic and laparoscopic surgery, ureteral re-implantation, and many types of ureteral reconstruction techniques. We are particularly concerned with preserving long-term kidney function and improving patients' quality of life.

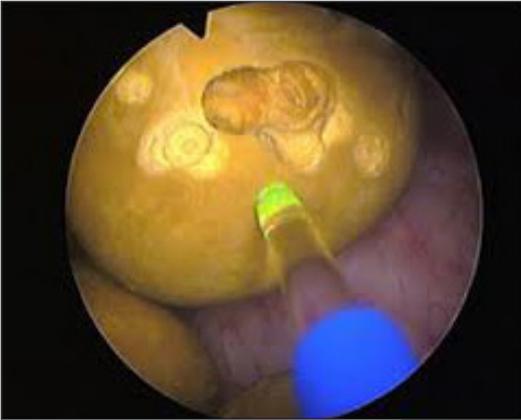
Laser Procedures

Laser Procedures for Kidney Stones and Stricture Disease

High-powered holmium laser systems of 100 and 120 watts treat stones using a high-frequency procedure called dusting. In the dusting procedure, an advanced holmium laser delivers high-frequency, low pulse energy to pulverize stones into fine dust (particles smaller than 1mm). The dust is eliminated through the urine. If there is a large stone volume, a ureteral stent can help ensure that the small fragments and dust drain after surgery.

Today, modern holmium laser platforms support both retrieval and dusting, with energy settings – pulse energy, frequency, and pulse width – that can be combined for a variety of operative strategies that are dictated by patient factors, stone location and composition (hardness).

Lasers are also the mainstay therapy for treating ureteral and urethral stricture disease. As laser therapies have improved dramatically over the last decade, so have the treatments for stricture disease. Most short strictures can be treated as an outpatient procedure in an ambulatory center.



Treatment of a kidney stone using holmium laser.



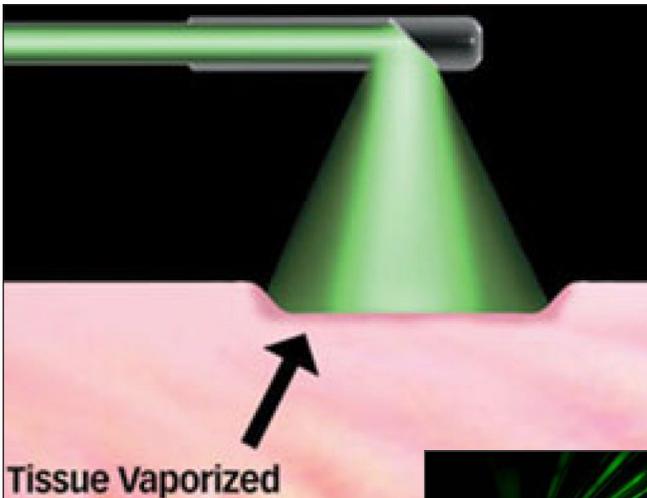
Demonstration of holmium laser fragmentation of a kidney stone model (magnified).

Laser Procedures for the Prostate

Prostate laser surgery is used to relieve moderate to severe urinary symptoms caused by an enlarged prostate – a condition known as benign prostatic hyperplasia (BPH). During prostate laser surgery, your doctor inserts a scope through the tip of your penis into the tube that carries urine from your bladder (urethra). A laser passed through the scope delivers energy that shrinks or removes excess tissue that is preventing urine flow.

Lasers use concentrated light to generate precise and intense heat. There are several different types of prostate laser surgery:

- Photoselective vaporization of the prostate (PVP) or GREENLIGHT LASER. A laser is used to melt away (vaporize) excess prostate tissue and enlarge the urinary channel.
- Holmium laser ablation of the prostate (HoLAP) or WHITE LIGHT LASER. This procedure is similar to PVP but uses a different type of laser.
- Holmium laser enucleation of the prostate (HoLEP). A laser is used to cut and remove the excess tissue that is blocking the urethra. Another instrument is then used to cut the prostate tissue into small pieces that are easily removed. HoLEP can be an option for men who have a severely enlarged prostate.



Greenlight Laser Treatment



Greenlight Laser Illustration



Bloodless and Complex Procedures

We offer treatment for patients with special needs or requests. A common inquiry is for “bloodless” surgery. For example, Jehovah’s Witnesses have deep religious convictions against accepting homologous or autologous whole blood, packed RBCs [red blood cells], WBCs [white blood cells], or platelets. Many will allow the use of (non-blood-prime) heart-lung, dialysis, or similar equipment if the extracorporeal circulation is uninterrupted. They accept nonblood replacement fluids. Using these and other meticulous techniques, physicians are performing major surgery of all types on adult and minor Jehovah’s Witness patients. A standard of practice for such patients has thus developed that accords with the tenet of treating the “whole person.” (JAMA 1981;246:2471-2472)

Complex surgery requires specific knowledge and skills related to the diagnosis, multidisciplinary treatment, and rehabilitation required by patients with cancer, especially those with complex presentations or with rare or unusual cancers. Using the latest research and techniques, Dr. Palese and his team give individualized treatment to every patient.

Robot-Assisted Surgery

Major technological innovations over the past 40 years are responsible for the transition from traditional open surgery to minimally invasive surgery. In the 1980s and 1990s, laparoscopy revolutionized surgery by enabling major operations to be performed through small incisions. In the early 2000s, the *da Vinci* robot-assisted surgery platform improved laparoscopy by allowing surgeons to have greater dexterity, visualization, and mobility.

Basics of Robot-Assisted Surgery

Miniaturized instruments and a high-definition 3D camera are inserted into a patient's body via small incisions. The surgeon operates from a control console that allows the surgeon to maneuver the robot's arms inside the patient. High-definition 3D images allow surgeons to visualize the surgical space, allowing the surgeon to gain greater visibility than with traditional surgery. Using various parts of the arms, the surgeon can cut, stitch, and do other things to various organs, blood vessels, and nerves. The instruments allow the surgeons to perform operations with minimal injury to the body. The surgeon is always in full control of the robot.

Robot-assisted surgeries usually take less time than open, non-robot surgeries. Patients have a more rapid recovery and a faster return to normal living. Many of these procedures may be performed on an outpatient basis or require only a one-day hospital stay.



da Vinci console



da Vinci robot

Single Port Robot-Assisted Surgery

Minimally invasive surgery has been shown to improve patient outcomes and decrease overall health care costs, and recent efforts to further reduce surgical morbidity have focused on reducing the size and number of surgical ports. The Intuitive Surgical *da Vinci* robots use four ports but in 2014 the *da Vinci* SP (“Single Port”) robotic platform was approved for surgical use.

Our group has compiled the country’s largest experience performing single port, robot-assisted partial nephrectomy (SP-RAPN), and we shared our practical tips and tricks at the 2020 American Urological Association meeting. We found that SP-RAPN is safe and feasible in our series. There are excellent cosmetic outcomes using this approach.

Single port surgery allows us to specialize in upper tract and lower urinary tract surgery. Dr. Palese is able to perform the following procedures:

- Nephroureterectomy
- Adrenalectomy
- Ureteral excision
- Pyeloplasty
- Ureteral reimplant
- Donor nephrectomy
- Ureteral reconstruction
- Ureterolysis
- Pyelolithotomy
- Partial nephrectomy
- Radical nephrectomy

In addition, Dr. Palese is working on the development of new robot-assisted procedures such as robotic donor nephrectomy and complex robotic pyelolithotomy.

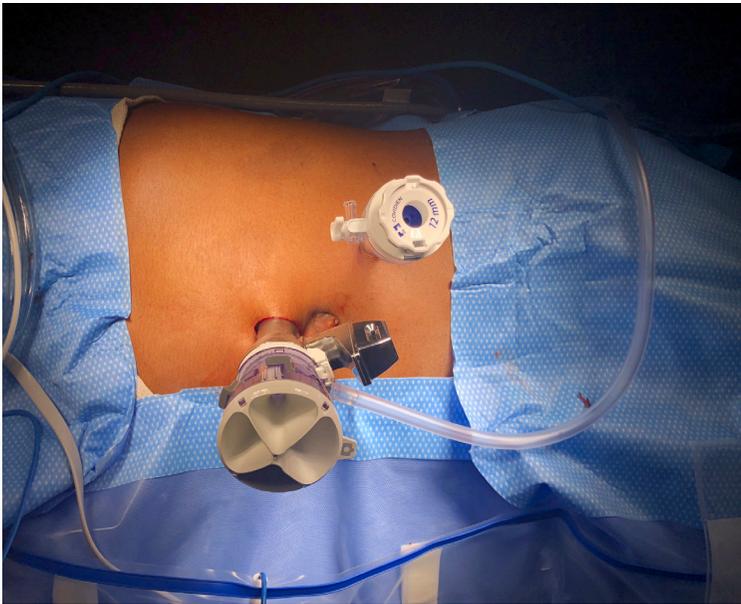


Laparoscopic Surgery

Laparoscopic surgery is another form of minimally invasive surgery that involves the use of a thin, tubular device called a laparoscope which is inserted through a keyhole incision into the abdomen or pelvis to perform operations that formerly required large incisions. Because the procedure involves smaller wounds, recovery times tend to be shorter and with less pain.

Modern laparoscopy was first employed in the late 1940s to perform hysterectomies but only came into its own in the 1970s and 1980s when the first laparoscopes were patented for widespread use. Urologists adopted laparoscopy into their practices in the early 1990s.

Certain conditions, such as very large renal tumors, cannot be treated with robot-assisted surgery, so a laparoscopic approach remains essential to complete a minimally invasive approach.





Advantages of Laparoscopic Surgery

There are many benefits from performing a laparoscopic surgery. The most common advantages are:

- Less bleeding and typically less need for a blood transfusion
- Smaller incision and shorter recovery time
- Less pain and less need for pain medications
- Tactile feedback allowing the surgeon to gauge the integrity of tissue being operated on
- Reduced risk of contamination compared to open surgery

With laparoscopic surgery, like all surgery, there are limitations and risks that accompany any surgical procedure.

Robotic SP Donor Nephrectomy

Laparoscopic living donor nephrectomy (LDN) is the standard of care at high-volume renal transplant centers, with advantages such as lower estimated blood loss, fewer intraoperative complications, quicker return to normal daily activities, and shorter length of hospital stay. Laparo-Endoscopic Single Site (LESS) LDN is a safe and effective alternative to LDN with excellent cosmesis and low pain scores, but more difficult and of higher cost.

New innovations in robotic technology will allow the evolution of single-site approaches to donor nephrectomy. Robot-assisted LDN is ergonomic progress compared to other techniques. In a meta-analysis of study of robotic LDN, evidence shows excellent outcomes with improved hilar dissection with preservation of vascular length and shorter learning curve compared to laparoscopic LDN. Dr. Palese and his team believe these new innovations are uniquely suited for the LDN procedure, combining the technical advantages of the robotic instruments with the cosmetic and recovery approaches of LESS. He and his team are actively studying and evaluating the SP system for the use in donor nephrectomy surgery.

Performing Laparoscopic Surgery

Laparoscopic surgery is carried out entirely on the inside of the body. Instead of making a long, open incision, laparoscopic surgery requires one or multiple small incisions (usually a quarter to a half inch in length) through which scopes are inserted. The surgery itself is guided by close-up video imaging which is viewed externally on a monitor.

In order to provide the surgeon with more room to operate, the cavity will typically be inflated with pressurized carbon dioxide (CO₂), which is both non-flammable and readily absorbed into the body.

Laparoscopy is a technically complicated surgery that requires excellent hand-eye coordination and an almost intuitive ability to navigate delicate internal structures. The surgeon must be facile, purposeful, and talented to navigate the complexities of laparoscopic surgery; only a few urologic surgeons are trained in this technique, including Dr. Palese and Dr. Dinlenc.



**Caner Dinlenc, MD,
MBA, FACS**
Associate Professor
of Urology

Other Program Centers in Urology Department at Mount Sinai

The Department of Urology's surgeons and scientists have pioneered the adoption of novel diagnostic techniques and minimally invasive treatments for a wide range of other urologic disorders. The program centers and procedures include:

Prostate Cancer Program:

Dr. Ashutosh (Ash) K. Tewari, MBBS, MCh, FRCS (Hon.), System Chair of the Department of Urology leads our prostate cancer program. Dr. Tewari has performed more than 7,000 robotic prostatectomies (surgery to remove the entire prostate). He is also highly skilled in procedures such as active surveillance, genomic marker analysis, immunotherapy, and MRI fusion targeted biopsy.

Bladder Cancer Program:

Dr. Peter Wiklund MD, PhD, a world renowned physician-scientist, is the director of our bladder cancer program. His innovations include the entirely robotic removal of a bladder and creation of a new bladder and he has performed the highest number of these surgeries worldwide. Along with Dr. Mehrzin and Dr. Sfakianos, he has expanded the scope of robotic surgery, immunotherapy and research to provide a patient centered, personalized treatment approach to bladder cancer.

Comprehensive Kidney Cancer Center and Reconstructive Surgery Program:

Dr. Ketan K. Badani, MD, system Vice Chair of Urology, leads the Comprehensive Kidney Cancer Center and Robotic Kidney Surgery Program. Dr. Badani has the most experience performing robotic kidney surgery of any surgeon in the United States. He is also highly skilled in complex urinary tract reconstructive surgery. The Comprehensive Kidney Cancer Center at Mount Sinai offers all treatment modalities for kidney cancer including radical and partial nephrectomy, ablation, and active surveillance.

Kidney Stone Center:

The Kidney Stone Center at Mount Sinai, led by Mantu Gupta, MD, FRCS (Glasg.), provides a comprehensive approach to the treatment of kidney stones. He has brought to the Mount Sinai Department of Urology the latest technological advances for the treatment of kidney stones, including state-of-the-art lasers, best-in-class shock wave lithotripsy machines, and flexible miniature endoscopes that improve patient comfort and outcomes.

Research and Education

Dr. Palese, the Chair of the Sol and Margaret Berger Department of Urology, has implemented an academic and community medicine approach that is leveraging the revered history of the Department; the strengths in treatment, prevention and training; our translational research enterprise; and the scale and scope of the Mount Sinai Health System, to provide world-class urological care to our community.

Located in New York City with access to the most diverse patient population in the country, the Mount Sinai Health System's is recognized as an expert in population health research. We have a unique opportunity to study urological outcomes, health care value, and treatment effectiveness over a very large population.

The Department of Urology Clinical Outcomes Research Program will apply an outcomes-based approach to quantify treatment plans and the potential of new therapeutics discovered by Mount Sinai researchers, focusing on areas such as quality control analysis and cost-effectiveness studies. We will track medical outcomes, patient satisfaction, and the implications for health care costs for all urology patients seen across the Mount Sinai Health System.

Partnering with the Department of Population Health Science and Policy at the Icahn School of Medicine at Mount Sinai, we will bring the most promising experimental therapeutics to patients by increasing the Health System's participation in multi-center clinical trials. Research examples include:

- **Kidney Cancer:** Effective treatment strategies for late-stage kidney cancer continue to be elusive, but new and promising drug trials available through the Department of Urology and Department of Hematology and Medical Oncology



Dr. Palese and his team were the first in the country to set up a robotic surgery teaching module for medical students.

Commemorating the tenth anniversary are Dr. Palese, far right, and his team.

are changing the landscape. In addition, by leveraging big data research and population health trends, outcomes for kidney cancer are being studied on a large and whole population scale. This will allow for informed and educated choices in combating advanced kidney cancer.

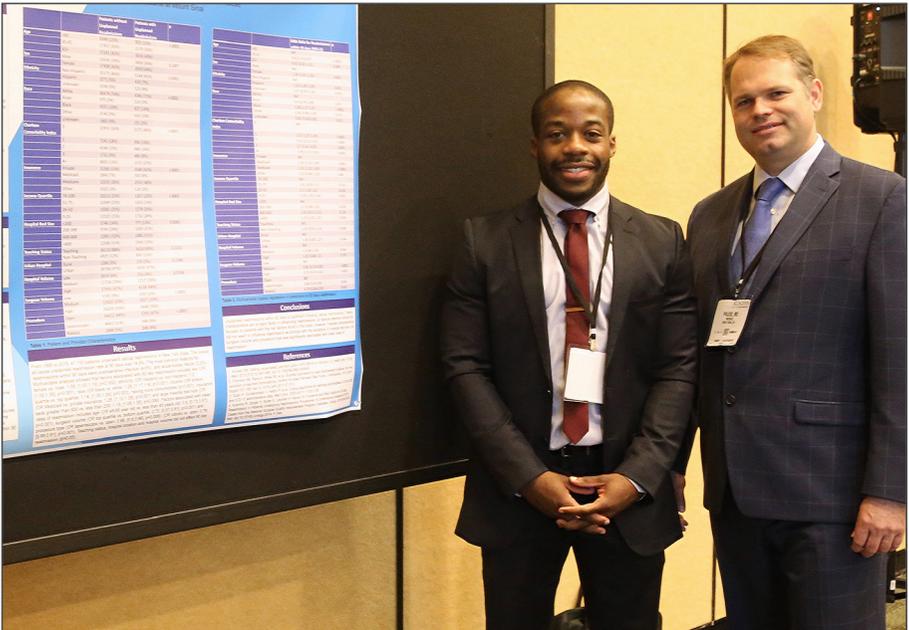
- **Bladder Cancer:** New treatment regimens are needed for metastatic bladder cancer, and our physicians are on the forefront of exploring promising new therapies. At Mount Sinai, we are involved with clinical trials evaluating the effectiveness of new and emerging agents in conjunction with chemotherapy.
- **Prostate Cancer:** Our commitment to genomics studies has resulted in the establishment of dedicated laboratories where research fellows and postdoctoral students actively engage in clinical trials and pre-clinical analyses to solve some of the most important questions clinicians and scientists are grappling with today, including how to stage prostate cancer and develop truly personalized treatment regimens.
- **Kidney Stones:** Treatment options for kidney and ureteral stones continue to be slow to evolve with many surgical and medical therapies continuing to be unchanged over the last decade. Metabolic syndromes and new surgical techniques are being studied at the Downtown campus. Dr. Palese also leads this charge with the design and implementation of newly patented surgical devices.

Mount Sinai Downtown Urology continues to teach a full complement of urology residents, fellows, and medical students on a daily basis. We support educational programs, conferences, research, and medical training which advance the development and training of junior physicians.





Dr. Palese, left, interviews his patient for an educational seminar sponsored by the National Kidney Foundation.



Dr. Palese, right, with his student, now resident, Dr. Olamide Omidele at the American Urological Association's 2019 Annual Meeting.

Patient Set Up and Care

Dr. Palese's team includes two coordinators who assist in your pre-surgical testing, as well as physician assistants and registered nurses who help you throughout your pre- and post-surgical treatments.



Our Dedicated Physicians



**Caner Dinlenc,
MD, MBA, FACS**
*Urologic Oncology,
Kidney Stones,
Robotic Surgery*



**Aaron Grotas,
MD**
General Urology



**Rajveer Purohit,
MD, MPH**
*Reconstructive and
Transgender
Urology*



**Sovrin M. Shah,
MD, FPMRS**
Female Urology

Our Team

Our highly specialized team of doctors and other medical professionals work together to provide first-class care using state-of-the-art technology and supported by innovative research. The team has surgery coordinators to help through every step of your medical journey, from pre-surgery testing to surgery to post-surgical care. When needed, we also have experts in key subspecialties such as male and female incontinence, sexual function and infertility, men's health, and interactive urology and holistic medicine.

Patients are primarily seen at our spacious and modern office at Mount Sinai Downtown at Union Square. The office is centrally located in lower Manhattan and is easily reached by subway, bus, and car (plenty of garages within a few blocks of the office).

Please feel free to ask us any question at any time. We can be contacted at 212-844-8900. For more information about Dr. Palese and the Minimally Invasive Surgery program at Mount Sinai, please visit: www.mountsinai.org/MinimallyInvasiveUrology



Frequently Asked Questions

Q. How is Minimally Invasive Surgery different than regular surgery?

Minimally Invasive Surgery uses innovative technology to perform operations through small incisions which result in less pain, shorter-hospital stays, less blood loss, lower risk of infection, and less scarring. The *da Vinci* Single Port robot-assisted platform helps Dr. Palese make only one small incision through which all instruments are used to perform the required surgery. Diseases of the kidney, adrenal, ureter, bladder, and prostate can all benefit from treatment via minimally invasive surgery. Patients with unique and complicated medical conditions, as well as geriatric patients, are two additional populations that benefit significantly from a non-invasive surgical approach.

Q: What are the types of Minimally Invasive Surgery?

The most common forms of Minimally Invasive Surgery are robot-assisted, laparoscopic, endoscopic, and laser surgery. All require a high degree of surgical training. Dr. Palese is an expert in each area and also has a fellowship program to teach and educate other physicians in these techniques.

What type of patient care do you offer?

Our surgical team includes surgical coordinators, physician assistants, and registered nurses. Working together, we make sure that your pre- and post-surgery care is seamless and painless. Besides our core team of surgeons, we also have access to additional specialists in the fields of male and female incontinence, sexual function and infertility, men's health, and interactive urology and holistic medicine.

Is it easy to reach your office at Union Square?

Yes. Subway lines from Manhattan, Queens, Brooklyn, and the Bronx all go to the 14th Street Union Square subway station. Many buses from all five boroughs also stop right outside our office. If you drive a car, the GGMC parking garage has an entrance on 15th Street, to the lower level of our building at 10 Union Square East and is convenient for wheelchair accessibility and ambulatory ease. There are also plenty of garages within a few blocks of the office.



Dr. Palese welcomes you to our spacious and modern office at Mount Sinai Downtown at 10 Union Square East.

