

Urology Residency Training Program

Glickman Urological & Kidney Institute



Dear Medical Students,

We welcome your interest in the Cleveland Clinic Glickman Urological & Kidney Institute's Urology Residency Training Program.

According to the Doximity Residency Navigator survey, which includes peer nominations from board-certified U.S. physicians, Cleveland Clinic is recognized as having the top residency program in urology by reputation and research output.

Ours is a six-year program integrating one year of prespeciality training, one year of research and four years of clinical urology training. This brochure provides an overview of our program as well as information about living in the Cleveland area.

All members of the Urological & Kidney Institute are committed to maintaining an academic environment that fosters the best possible graduate urologic training. Our residency training program offers a variety of challenging clinical experiences as well as numerous opportunities for basic, translational, clinical and outcomes research. The Glickman Urological & Kidney Institute's collegial atmosphere and ample support staff enable residents to balance clinical and investigative training with family and personal interests outside the hospital.

Urology is a rapidly advancing specialty, and the Glickman Urological & Kidney Institute is at the forefront of progress, with strong programs in all of the subspecialty areas. We believe that our residency program is among the best and that it will enable our graduates to take their place among tomorrow's leaders in clinical and investigative urology.

Sincerely,



Stave Complell

Steven Campbell, MD Director, Urology Residency Training Program



Ongo K. Montque MO

Drogo K. Montague, MD Associate Director, Urology Residency Training Program





Kenneth Angermeier, MD Associate Director, Urology Residency Training Program



Thya Bal

Ryan Berglund, MD Associate Director, Urology Residency Training Program

Cleveland Clinic

A National Referral Center, An International Health Resource

Founded in 1921, Cleveland Clinic is a nonprofit, multispecialty academic medical center that integrates clinical and hospital care with research and education. We are a U.S.-based global enterprise in five countries (U.S., Canada, United Arab Emirates, Saudi Arabia and the United Kingdom) with locations and affiliations in 19 states, including a tertiary care hospital in Weston, Florida, and a brain treatment center in Las Vegas. More than 3,400 physicians and scientists practice in 140 medical specialties and subspecialties, annually recording more than 6.6 million patient visits and 208,807 surgeries.

Cleveland Clinic's main campus on 180 acres in Cleveland, Ohio, includes a 1,437-bed hospital, outpatient clinics, a research institute, 27 specialty institutes, and supporting labs and facilities. Cleveland Clinic also operates 18 family health centers, nine regional hospitals, two adult and one children's rehabilitation hospitals, and one affiliate hospital in Ohio.

The Lerner Research Institute is home to all laboratory-based basic, translational and clinical research at Cleveland Clinic. With nearly 1,500 researchers and support personnel in 175 laboratories in 12 departments, it is one of the largest research institutes in the nation, consistently ranking in the top 10 in National Institutes of Health funding. Our founders' dedication to training future generations of physicians continues today. More than 1,800 residents and fellows are involved in patient care at Cleveland Clinic. In 2004, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University opened. The first students in the program graduated as physician-scientists in 2009.

In 2008 and again in 2013, Cleveland Clinic was redesignated as a Magnet[®] status hospital, the most sought-after indicator of nursing excellence, by the American Nurses Credentialing Center.

In 2007, Cleveland Clinic restructured its practice, bundling all clinical specialties into integrated practice units called institutes. An institute combines all the specialties surrounding a specific organ or disease system under a single roof. Each institute has a single leader and focuses the energies of multiple professionals onto the patient. From access and communication to billing and point-of-care service, institutes are improving the patient experience at Cleveland Clinic.

And the quality of medical care at Cleveland Clinic has been recognized repeatedly. Every year since 1990, *U.S. News & World Report* has named Cleveland Clinic one of the nation's best hospitals in its "America's Best Hospitals" survey. Since 2000, *U.S. News* has designated Cleveland Clinic's urology program as one of the top two urology programs in the United States.





Institute Leadership



Eric Klein, MD Chairman, Glickman Urological & Kidney Institute

The Glickman Urological & Kidney Institute

The Glickman Urological & Kidney Institute's urology program has a professional staff of 75 physicians and scientists representing all subspecialties of urology and composing the largest full-time urology faculty in the United States.

Residents participate in all aspects of patient care in general and subspecialty urology, including outpatient evaluation, inpatient and outpatient surgeries and postoperative care. A large staff of physician assistants and nurse practitioners is available to handle noneducational patient responsibilities during the day.

In 2008, the Glickman Urological & Kidney Institute moved into the new Glickman Tower. At 12 stories, the tower is the tallest building on Cleveland Clinic's main campus. Its 200,000 square feet contain 77 physician offices, 16 technologically sophisticated procedure rooms, 12 outpatient procedure rooms and 74 exam rooms. An auditorium is fully equipped for telemedicine and videoconferencing.

The 21-bed dialysis unit is designed with floor-to-ceiling windows offering scenic views. The tower also contains a chapel and meditation room. A fourstory grand hall features artwork, a café and an educational health resource center for patients.



Edmund Sabanegh, MD Chairman, Department of Urology Vice Chairman, Glickman Urological & Kidney Institute



Robert Heyka, MD *Chairman, Department of Nephrology and Hypertension*

For more information

on our urology education programs, visit clevelandclinic.org/GUKIeducation

Residency Training Program

Cleveland Clinic is approved for five years of clinical training, with one year of general surgery and four years of urology training. In addition, one year is spent developing skills in urological research, with opportunities in the basic, translational, clinical and outcomes arenas. Five residents are appointed each year. There is an emphasis on clinical and operative urology, with residents pursuing a diversity of specialties within urology upon completion of the training program. During the last 10 years, two-thirds of our residents have pursued competitive fellowships, with half of all graduates going on to academic careers.

GL-1

- 5 months general surgery
- 2 months general urology
- 3 months renal transplantation
- $1 {\ \rm month\ surgical\ intensive\ care}$
- 1 month nephrology

GL-2

- $1 \ 1/2$ months inpatient consults
- $1 \ 1/2 \ {\rm months} \ {\rm endourology}$
- 1 1/2 months female urology and voiding dysfunction
- $2\,\,1/2$ months general urology
- $2\ {\rm months}\ {\rm laparoscopic}\ {\rm and}\ {\rm robotic}\ {\rm urology}$
- 2 months pediatric urology
- 1 month prosthetics/reconstructive urology
- 1 month at VA medical center

GL-3

- 1 month inpatient consults
- 1 month endourology
- 3 1/2 months general urology
- 1 1/2 months laparoscopic and robotic urology
- 1 month urologic oncology
- 2 months pediatric urology
- 1 month prosthetics/reconstructive urology
- 1 month renal transplantation
- 1 month at VA medical center

GL-4 - Research and Academic Skills Training

The fourth year of residency is dedicated to academic training. During this year, free of clinical responsibilities, the resident works under supervision on a urology-related basic science, translational or health services research project. Residents also take part in a research seminar program that helps develop key academic skills. Topics include review of statistics, how to make slides and give medical presentations, clinical trial design, grant writing, manuscript writing, how to submit manuscripts to journals, and database management.

GL-5

- 1/2 month female urology and voiding dysfunction
- 3 1/2 months general urology
- 1 month laparoscopic and robotic urology
- 4 1/2 months urologic oncology
- 1 month pediatric urology
- $1 \ 1/2$ months renal transplantation

GL-6

Chief resident year with operative, administrative and educational responsibilities as well as supervision of inpatient services.

Teaching Conferences

- Chief Residents' Conference Weekly
- Didactic Conference Weekly
- Morbidity and Mortality Conference Monthly
- Oncology Multidisciplinary Conference Monthly
- Patient Management Conference Weekly
- Journal Club Monthly
- Oncology Journal Club Weekly
- Female Urology Conference Weekly
- Patient Safety/Quality Monthly
- Oncology Indications Multidisciplinary Conference – Weekly





Resident Responsibilities

From the first day after internship, residents are entrusted with independently running their own inpatient services tailored to a subspecialty of urology. Residents work directly with faculty in a preceptor model to learn management of urologic disorders in an inpatient setting and outpatient clinics. Residents at each level participate in the operating room three to four days per week, with emphasis on endourology and male genital surgery at junior levels and on open, laparoscopic and robotic oncologic and reconstructive surgery at senior levels. Chief residents focus on refining operating skills in preparation for fellowship and practice, and shoulder administrative and educational responsibilities for the residency program as well as supervising junior residents covering the inpatient services.

On-call duties require GL2 residents to spend, on average, four to five nights per month and GL3 residents to spend, on average, three to four weeknights per month in the hospital. GL4 residents do not have on-call responsibilities. GL5 residents have one in-house call per month. The five chief residents rotate as the supervising/backup house officer.



Prostate MR-guided fusion biopsy



Robert J. Stein, MD Teacher of the Year, 2016

Scope of Urology Services

The Glickman Urological & Kidney Institute provides a wide range of adult and pediatric urological services. Our patients come from throughout the United States and more than 70 other countries. In addition to providing general adult and pediatric urological services, the Urological & Kidney Institute provides many highly specialized tertiary care services, described in more detail in the following pages.

Urologic Oncology

Renal cancer – The majority of radical nephrectomies performed at Cleveland Clinic are laparoscopic. A number of open radical nephrectomies with vena caval thrombectomy are performed each year. The Urological & Kidney Institute has the largest experience of partial nephrectomy (PN) in the world, including the most PN for tumors in a solitary kidney, as well as many other challenging cases. The scope of nephron-sparing surgery is further expanded by our extensive experience in laparoscopic, robotic and percutaneous cryoablation of renal tumors.

Prostate cancer – Our prostate cancer training experience is unique because it offers expertise in all forms of therapy for men with localized disease — open and robotic radical prostatectomy; focal, subtotal and whole-gland cryotherapy; brachytherapy; and multidsiciplinary approaches including neoadjuvant systemic therapy in conjunction with surgery for locally advanced disease. The program evaluates and treats more than 1,000 new patients annually and performs 600 radical prostatectomies per year. During the VA rotation, residents become adept at transrectal ultrasound-guided biopsy, including new MR-TRUS fusion biopsy (see image).

Bladder cancer – Our physicians perform more than 600 transurethral resections of the bladder each year. Cleveland Clinic is a leader in the field of minimally invasive radical cystectomy, having performed more than 3,200 cases. Residents also become adept at the full range of options for urinary diversion, with an emphasis on orthotopic neobladders.

Testis cancer – Residents are educated in the management of testis cancer on a multidisciplinary level. An average of 20 to 30 retroperitoneal lymph node dissection procedures are performed each year.

Adrenal surgery – The majority of the adrenalectomies performed here are done laparoscopically or robotically. Residents are trained in the surgical and medical management of adrenal masses manifesting as Cushing syndrome, pheochromocytoma, hyperaldosteronism and adrenal cortical carcinoma.

Surgical Cases

	YEAR		
SECTION	2014	2015	2016*
Female Urology	714	742	746
Male Infertility	114	110	89
Minimally Invasive Surgery	1,430	1,490	1,467
Oncology	1,380	1,465	1,447
Pediatric Urology	371	495	458
Reconstruction	674	627	665
Stones	1,007	945	977
Transplant	139	139	165
General Urology	2,753	2,979	2,878

*2016 annualized from July 2016



Laparoscopic and Robotic Surgery

As a high-volume center for laparoscopic urologic surgery, we lead in developing new techniques and expanding the scope of minimally invasive surgery. Residents participate in laparoscopic adrenalectomy, partial nephrectomy, radical nephrectomy, renal cryoablation, radical cystectomy, prostatectomy, pyeloplasty, ileal ureter transposition, orchidopexy, sacrocolpopexy and ureterolysis. Robotic surgery is utilized for prostatectomy, cystectomy, partial nephrectomy and pyeloplasty procedures.

Renal Transplantation

Since the first kidney transplant in 1963 at Cleveland Clinic, the Urological & Kidney Institute has performed more than 4,600 renal transplants. Residents spend four months over three different years learning technique and principles of renal transplantation, a service run entirely by staff of the Urological & Kidney Institute. During this rotation, residents perfect skills in vascular anastomosis, ureteroneocystotomy, cadaveric organ procurement, livingdonor open and laparoscopic nephrectomy, pancreas transplantation, immunosuppressive protocols and evaluation of patients with end-stage renal disease.



Prosthetics and Reconstruction

Glickman Urological & Kidney Institute faculty have expertise in complex urethral reconstruction for stricture disease. Using plastic surgery principles, they perform about 80 such procedures per year using flaps, buccal mucosal grafts and anastomotic procedures. Additionally, they undertake complex fistula repairs, often in collaboration with the Department of Colorectal Surgery. A high volume of patients with Peyronie disease or congenital penile curvature are seen for minimally invasive therapy or surgical procedures. More than 500 prosthetic surgeries, including inflatable penile prostheses, artificial urinary sphincters and revisions, are done each year. Residents also gain experience with less common conditions such as penile and urethral cancer, lymphedema, buried penis and urinary tract complications related to radiation therapy.

Voiding Dysfunction and Female Urology

More than 300 vaginal sling procedures are performed each year at Cleveland Clinic. More than 2,000 urodynamics procedures are performed each year in our dedicated urodynamics facility by specially trained nurses. Residents and faculty interpret studies in the management of patients with incontinence, neuro-urological disorders or other types of voiding dysfunction. A number of patients with pelvic organ prolapse are seen, and about 250 surgical procedures, including robotic sacrocolpopexy, are performed each year for repair of vaginal prolapse. Neurostimulator devices for refractory overactive bladder or chronic pelvic pain are increasingly being used.

Endourology and Stone Disease

Residents participate at the main campus and outpatient surgery centers in the surgical management of patients with renal calculus disease. On average, 1,000 procedures for renal calculi are performed each year, including complex procedures on patients with solitary kidneys, morbid obesity or anatomically displaced kidneys. The Urological & Kidney Institute also utilizes laparoscopic and open pyeloplasty, with about 60 adult and pediatric patients treated yearly for ureteropelvic junction (UPJ) obstruction. Additional patients are treated endoscopically with endopyelotomy for UPJ obstruction. Residents are trained in all aspects of stone treatment, including gaining percutaneous access in the operating room. Photo: Tom Merce



Men's Health

Residents are exposed to all areas of men's health, including the evaluation and medical and surgical management of benign prostatic hyperplasia (transurethral resection of the prostate, laser, button), erectile dysfunction, Peyronie disease (including collagenase injection and reconstruction), hypogonadism, vasectomy, chronic prostatitis/chronic pelvic pain syndrome and orchialgia.

Pediatric Urology

Residents work one-on-one with our pediatric urologists in outpatient management of urological issues and are well-trained in performing such procedures as hypospadias repair, open and laparoscopic pyeloplasty, open and laparoscopic orchidopexy, surgical and endoscopic management of vesicoureteral reflux, surgical management of Wilms' tumor and testis cancer, hernia/ hydrocele repair and circumcision.

Urological Congenitalism

The field of urological congenitalism focuses on lifelong care of individuals born with congenital anomalies effecting the genitourinary tract. Residents gain experience in this area, working with pediatric and adult caregivers as they prepare patients to transition to adult urological care. Outpatient clinics and operative experience are included in the residency program, involving adult and pediatric multispecialty spina bifida clinics. The spectrum of experience allows trainees to gain an understanding of historical procedures and their lingering effects on patients into adulthood, and how urological decision-making and postoperative care in patients with congenital needs changes with aging. Conditions included are bladder and cloacal exstrophy, myelomeningocele, posterior urethral valves, Eagle-Barrett syndrome, cerebral palsy and others.



Male Infertility

Residents are trained to thoroughly evaluate men presenting with infertility and are instructed in surgical techniques for varicocele ligation, microsurgical vasovasostomy and epididymo-vasostomy, and testicular sperm extraction. The Urological & Kidney Institute houses a highly sophisticated andrology laboratory and Center for Advanced Research in Human Reproduction, Infertility and Sexual Function. During internship, each resident takes a one-week dedicated microsurgery course.



Research and Academic Skills Year

The fourth year of residency is devoted exclusively to protected time to pursue research endeavors and build academic skills. During this year, residents have no clinical or on-call responsibilities. They are devoted full-time to a faculty-mentored project or projects in basic, translational or health services research.

During the first half of the third year, residents are expected to identify an area of research interest and seek out a research mentor in the Lerner Research Institute, the Urological & Kidney Institute, the Department of Quantitative Health Sciences or other institutes. Specific projects are outlined and developed in the second half of the third residency year under faculty guidance, allowing a rapid start to the project at the commencement of the fourth year. Residents are expected to become full-time members of their chosen research team and participate in all group activities related to the mentor's research endeavors, such as regular lab meetings and didactic conferences, as well as fully participating in all didactic activities of the Department of Urology. Under the mentorship of Daniel Shoskes, MD, Director of the Novick Center for Clinical and Translational Research, the fourthyear residents meet as a group on a regular basis to share progress on specific projects and engage in an academic skills curriculum. This curriculum is designed to enhance basic skills that will serve life-long learning in the following areas:

- · Reading and interpreting clinical and scientific literature
- Basic biomedical statistical concepts, interpretation and use
- Oral presentation skills, including making slides and posters
- Abstract and manuscript preparation and publication
- Grant writing
- Interacting with an institutional review board
- Clinical trial design

Residents are encouraged to submit their work for presentation to relevant local, regional and national urologic and scientific meetings. Time off and funds for travel to regional and national meetings are provided by the Department of Urology during all years of training.



Nima Sharifi, MD Kendrick Family Endowed Chair for Prostate Cancer Research







Basic and Translational Research Opportunities

The Lerner Research Institute, a complex of laboratories, classrooms, libraries and multimedia centers, has been designed to provide a dynamic center for Cleveland Clinic's research and education activities. The Glickman Urological & Kidney Institute has several basic research laboratories at the Lerner Research Institute and elsewhere on our main campus where residents develop their scientific skills during the 12 months of the fourth year. These include:

The Novick Center for Clinical and Translational Research, led by Daniel Shoskes, MD — facilitates interaction between researchers and clinicians across the departments of nephrology and urology. It also seeks to promote clinical and translational research and to help assure compliance with all federal and institutional regulations. The center allows for the necessary and efficient pooling of resources within the Urological & Kidney Institute. The Novick Center also provides easy access to biostatistical support for study design, analysis and reporting. The Center for Advanced Research in Human Reproduction, Infertility and Sexual Function, led by Ashok Agarwal, PhD, and Edmund Sabanegh, MD — is performing extensive studies on proteomics and reactive oxygen species formation in human sperm and their role in male infertility. Additional areas of investigation include assessment of human sperm function after cryopreservation and methods of improving post-thaw semen quality in cancer patients.

The Center for Pelvic Medicine and Surgery Laboratories, led by Margot S. Damaser, PhD — is recognized nationally as an elite group focused on characterizing the regulatory mechanisms of benign bladder conditions and pelvic floor injury and repair. Areas of investigation include biomechanical properties of the bladder and pelvic floor, diabetic cystopathy, inflammatory diseases of the bladder, and stem cell homing after pelvic injury.

The Minimally Invasive and Robotic Research Laboratory, led by Jihad Kaouk, MD — is focused on identifying new minimally invasive and noninvasive treatments for urologic disease and transferring these technologies to the operating room. Research areas include intraoperative imaging techniques, transcutaneous computed tomography- and ultrasound-guided surgery, and development of new laparoscopic technologies. **Transplant Immunology Laboratory, led by Robert L. Fairchild, PhD** — The investigations in this laboratory focus on the mechanisms that produce high levels of inflammation early in transplanted tissues and organs and on how this inflammation directs alloantigen-primed T cells and other leukocytes into allografts, and the effector mechanisms leading to solid organ graft rejection.

Andrology Research Laboratory, led by Ashok Agarwal, $\mathsf{PhD}-$

This laboratory focuses on the effect of oxidative stress on embryo development and sperm function; relevance of leukocytes on semen parameters, oxidative stress and DNA damage in semen of infertile patients; and the role of reactive oxygen species on mitochondrial DNA damage and apoptosis of human gametes and its relationship to infertility.

Prostate Cancer Laboratories

Lab led by Nima Sharifi, MD — Our laboratory is focused on steroid metabolism and androgen receptor function as it relates to prostate cancer. The first line of therapy for metastatic prostate cancer is androgen deprivation therapy (ADT), which blocks the release of gonadal testosterone and suppresses intratumoral concentrations of the most potent androgen, dihydrotestosterone (DHT). However, metastatic disease eventually becomes resistant to ADT. Prostate cancer that progresses in the face of ADT, or castration-resistant prostate cancer (CRPC), is frequently driven by tumors acquiring the capability to make their own DHT. We study how this process occurs. Our most important discoveries include identifying the first mutation in the androgen synthesis machinery that is responsible for increasing DHT synthesis in CRPC and demonstrating that DHT synthesis in patients with CRPC follows a pathway that circumvents testosterone. We are applying these findings to the study of CRPC as it occurs in patients.

Lab led by Hannelore Heemers, PhD — This laboratory's research focuses on generating insights into the specific molecular mechanisms by which the androgen receptor drives prostate cancer progression. The long-term goal of our group is to develop novel prostate cancer-selective forms of androgen deprivation therapy, and to optimize and personalize the administration of available forms of androgen deprivation therapy. We pursue these goals through two lines of research involving coregulator-dependent direct mechanisms of androgen action and a serum response factor-dependent indirect mechanism of androgen action.

Central to our research efforts are integrated approaches that combine an understanding of the basic mechanism of androgendependent gene transcription, systems biology approaches designed to answer specific questions, and clinical relevance of our research findings.

Lab led by Angela Ting, PhD — This laboratory investigates the epigenetic underpinnings of prostate cancer through the use of advanced genomic, biochemical and molecular techniques. We are currently focusing on fine-mapping the aberrant DNA methylation patterns in aggressive prostate cancer and leveraging this information to guide functional studies that will identify biomarkers and therapeutic targets for lethal disease.

Angiogenesis Laboratory, led by Tatiana V. Byzova, PhD —

This laboratory is a leader in tumor angiogenesis and metastasis. Our lab's research program focuses on the mechanisms of tumor metastasis. Areas of investigation include tumor angiogenesis; role for circulating tumor cells and their diagnostic value for predicting outcome in prostate and kidney cancer patients; mechanisms of cancer-induced thrombosis; role of circulating platelets in metastasis; and discovery of new biomarkers for kidney and prostate cancer.



Expanded Educational Opportunities

Stretching Your Horizons

Through Cleveland Clinic's Educational Institute and collaboration with other academic institutions, highly motived residents have many opportunities to expand their professional expertise beyond that obtained in residency. These **optional** programs, for which **limited tuition assistance** is available from the Glickman Urological & Kidney Institute, are offered to interested residents beginning in the research and academic skills (4th) year and include:

Clinical Research Scholars Program (CRSP)

This program, offered at Case Western Reserve University, is a flexible program designed to provide MDs and PhDs in health-related disciplines with rigorous didactic education in clinical research methods coupled with an in-depth mentored investigative experience. CRSP is designed to prepare clinical investigators for leadership roles in academia, government and industry. Two programs are offered: The Graduate Certificate in Clinical Research is a four-course program leading to basic competency in formulating clinical research questions, literature critique, study design, analytic methods and research ethics. The Master's Program in Clinical Research is a flexible two- to four-year master's program designed to provide rigorous didactic education in clinical research methods, coupled with an in-depth mentored investigative experience. Individual course enrollment without leading to a certificate or degree is also available. More information is available at casemed.case.edu/CRSP/.

Cleveland Clinic Learning Academy (CCLA)

CCLA is a tuition-free institutional program offering courses designed to enhance competency in key leadership skills, including business and change management, communication, emotional intelligence, finance, professionalism, strategic thinking/planning and talent development. Also available are specialty coursework series in diversity, inclusion and cultural competence, healthcare communication, medical biostatistics, and quality and patient safety/continuous improvement. Information on these programs is available at portals.clevelandclinic.org/ccla.



Master's Degree Opportunities

Several other master's-level programs are also available, including:

- Master of Business Administration in Health Care Management (Baldwin Wallace University and Ursuline College)
- **Master of Public Health** (Case Western Reserve University and Cleveland State University)
- Master of Positive Organizational Development (Case Western Reserve University)
- Master of Adult Education and Development (Cleveland State University)
- Executive Master of Business Administration in Ethical and Entrepreneurial Leadership (Ursuline College)

Information on these programs is available on the offering institutions' websites.



The same vitality that charges Cleveland Clinic extends to life outside work. University Circle, home of Cleveland Clinic's main campus, is Cleveland's cultural center. It boasts one of the country's greatest concentrations of museums and cultural activities, including the Cleveland Museum of Art, Cleveland Orchestra, Museum of Contemporary Art and Cleveland Museum of Natural History.

Vibrant city life

Downtown Cleveland is within walking distance of these lively venues:

- Playhouse Square and The Cleveland Play House for theater and Broadway shows — the largest U.S. performing arts center outside of New York
- The Rock and Roll Hall of Fame and Museum
- The Great Lakes Science Center and Cleveland Clinic OMNI MAX Theater
- Quicken Loans Arena, home of the 2016 NBA Champion Cleveland Cavaliers
- First Energy Stadium, home of the Cleveland Browns
- · Progressive Field, home of the Cleveland Indians
- JACK Cleveland Casino
- The Warehouse District, Gateway District/East Fourth Street and the Flats East Bank — live music, comedy clubs, restaurants and more
- The West Side Market dozens of food vendors in a beautiful historic building









Other local attractions

The unique Little Italy, Ohio City, Tremont, Gordon Square, Uptown and Waterloo neighborhoods, a few miles from Cleveland Clinic, offer a variety of restaurants, shops, galleries, craft breweries and more.

Blossom Music Center is the summer home of The Cleveland Orchestra and a popular outdoor concert venue.

The Cleveland Metroparks Zoo and Cedar Point Amusement Park offer family fun.

Outdoor pursuits

Lake Erie is a mecca for boaters, sailors and anglers.

The Cleveland Metroparks (18 nature preserves and lakefront beaches encircling the city) has running, hiking and biking trails, excellent for cross-country skiing, tobogganing and snowmobiling in winter.

Cuyahoga Valley National Park, a 33,000-acre preserve straddling the Cuyahoga River, is one of the most-visited U.S. National Parks.

The Towpath Trail is an 85-mile biking and hiking route stretching from Cleveland to central Ohio.









For more information about the Urology Residency Training Program, contact:

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clevelandclinic.org/GUKIeducation

Cleveland Clinic

Every life deserves world class care.

9500 Euclid Ave., Cleveland, OH 44195

Cleveland Clinic is a nonprofit, multispecialty academic medical center integrating clinical and hospital care with research and education for better patient care. More than 3,400 staff physicians and researchers in 140 medical specialties provide services through 27 clinical and special expertise institutes. Cleveland Clinic comprises a main campus, nine regional hospitals and more than 150 outpatient locations, with 18 family health centers and three health and wellness centers in northern Ohio, as well as medical facilities in Florida, Nevada, Toronto and Abu Dhabi. Cleveland Clinic is currently ranked as the No. 2 hospital in the country by U.S. News & World Report. clevelandclinic.org

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