## GENERAL SURGERY

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## **Graduate Medical Education**



Wake Forest University School of Medicine

# WELCOME

The General Surgery Residency Program at Wake Forest University School of Medicine is a top-tier five-year residency. We provide a comprehensive training experience that prepares our graduates to become the surgical leaders of tomorrow.

Our graduates have gone on to become boardcertified surgeons, obtaining highly competitive fellowships in fields such as surgical oncology and pediatric surgery.

#### **ACGME ACCREDITATION**

We received continued accreditation after a site visit in January 2016. We are approved to finish 7 categorical chief residents per year. Our program is fully compliant with resident duty-hour rules.

## Our General Surgery Residency Program

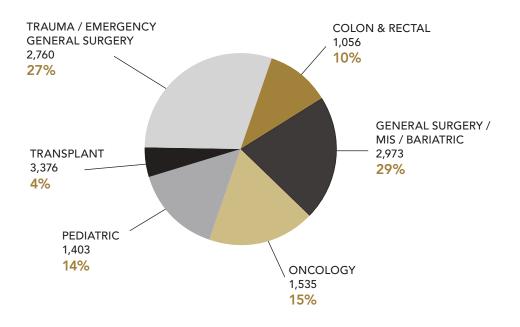
Atrium Health Wake Forest Baptist Medical Center performs more than 39,000 surgeries a year. As a general surgery resident, you will:

- Complete more than 1,000 cases upon graduation.
- Obtain early operative experience.
- Receive extensive, level-appropriate primary surgeon experience.
- Have a diverse operative experience, including innovative techniques, robotics and minimally invasive approaches.
- Perform complex surgical management for pediatric, trauma and surgical oncology patients.

Our surgical service areas include:

- Surgical oncology
- Colorectal surgery
- Minimally invasive surgery
- Trauma
- Burns
- Transplant
- Surgical critical care
- Emergency general surgery
- Pediatric surgery
- Private practice general surgery
- Veterans Health Administration facilities in Salisbury
- Vascular surgery

#### FY 2023 DEPARTMENT OF SURGERY CASE COUNT



## **Our General Surgery Residency Program**

Training includes a wide variety of cases:

- Laparoscopic common bile duct exploration
- Bariatrics
- HIPEC/cytoreductive surgery
- Whipple
- Major liver resection
- Robotic distal pancreatectomy
- Biliary reconstruction
- Component separation
- Penetrating trauma
- Heller myotomy
- Esophagectomy
- Gastrectomy
- Minimal invasive and robotic colon resection
- Congenital anomalies
- Tracheal esophageal fistula
- Mastectomy
- Laparoscopic adrenalectomy

Typical day schedule:

- 5:30 am: Sign-out
- 6 am: Rounds
- 7 am: OR (8+ rooms daily)
- PGY1: Floor, consults, OR/secondary Surgeon
- PGY2–3: Consults, ICU, OR/primary surgeon, level appropriate
- PGY4–5: OR/primary surgeon, level appropriate
- Wednesday: Quality conference and grand rounds
- Friday: Educational conference
- Subspecialty conferences

#### PROGRAM OVERVIEW

### PGY ROTATIONS

- 1 Colorectal surgery, surgical oncology, minimally invasive surgery, emergency general surgery, night call, critical care, trauma, vascular, pediatrics, VA
- 2 Surgical oncology, chairman service, critical care, burn, pediatric surgery
- 3 Colorectal surgery, minimally invasive surgery, emergency general surgery, transplant, vascular
- 4 Surgical oncology, minimally invasive surgery, trauma, cardiothoracic surgery, pediatric surgery
- 5 Colorectal surgery, surgical oncology, chairman service, nights, Davidson general surgery



## Atrium Health Wake Forest Baptist Medical Center **Surgical Services**

Program

Director,

Department

of Surgery

Reese



of Surgery Fabian Johnston,



Chair,

**RESIDENCY: Washington** University in St. Louis FELLOWSHIP: Johns Hopkins University SPECIALTIES: Surgical Oncology

Randle, MD **RESIDENCY: Wake Forest** University School of Medicine

FELLOWSHIP: University of Wisconsin, Endocrine Surgery SPECIALTIES: Endocrine Surgery

**RESIDENCY: Medical** University of South Carolina FELLOWSHIP: Wake Forest University School of Medicine, Acute Care

> Surgery SPECIALTIES: Emergency General Surgery, Trauma, Critical Care

Associate

Program

Director

Martin

Avery, MD

Associate

Program

Director

Colleen

Jay, MD

#### SURGICAL ONCOLOGY



#### Edward Levine, MD, FACS Section Head Surgical oncology is a key

component of the Atrium Health Wake Forest Baptist Comprehensive Cancer

Center. It is extensively involved in multimodality consultations for the care of patients with melanoma, sarcoma, endocrine tumors and diseases of the breast, as well as the full spectrum of gastrointestinal malignancy from esophagus to anus. The service is very busy, with approximately 1,500 major operative cases and more than 8,000 outpatient visits per year.

Faculty members of surgical oncology are dedicated to teaching the next generation of physicians to care for those with oncologic diseases. Trainees on service are part of a team bringing considerable clinical expertise to serve patients who require cancer staging, treatment and follow-up due to primary, recurrent or metastatic malignancy.

#### PEDIATRIC SURGERY

Thomas Pranikoff, MD, FACS **Division Chief** 

We offer the largest group of pediatric general surgery experts in the western half of North Carolina, who work

RESIDENCY

Northwestern University

McGaw Medical Center

FELLOWSHIP: Mavo Clinic

SPECIALTIES: Abdominal

Organ Transplant

through Atrium Health Wake Forest Baptist Brenner's Children Hospital and Atrium Health Wake Forest Baptist Medical Center.

Our pediatric surgery specialists are dedicated to excellence in surgical care for newborns to adolescents, treating a wide range of medical issues—from congenital problems to acquired disorders, lifethreatening emergencies to commonplace conditions.

Since we have no pediatric surgery fellowship, residents have a unique, rewarding experience caring for children who require surgical intervention.

#### **COLORECTAL SURGERY**



Gregory Waters, MD, FACS Section Head

The colon and rectal surgeons at Atrium Health Wake Forest Baptist treat the full spectrum of diseases of the colon,

rectum and anus. These include:

- Colon, rectal and anal cancer
- Hereditary colorectal cancer syndromes (FAP and Lynch syndrome)
- Inflammatory bowel disease (ulcerative colitis and Crohn's disease)
- Diverticular disease
- Benign diseases of the anorectum (hemorrhoids, anal fissures, anal fistulae, pilonidal cyst)

Faculty are fellowship-trained specialists who can provide the latest effective treatment methods. These include minimally invasive procedures (laparoscopy and robotic surgery), Transanal endoscopic microsurgery (TEM) and sphincter-preserving cancer surgery, as well as traditional open surgery. Our surgeons are board certified by the American Board of Surgery and the American Board of Colon and Rectal Surgery.

#### MINIMALLY INVASIVE SURGERY



Adolfo "Fuzz" Fernandez, MD, FACS, Section Head

Minimally invasive surgery at Atrium Health Wake Forest Baptist is pioneering surgical intervention for disease of the

esophagus, stomach and abdominal wall. Novel approaches including robotic, singleport and laparoscopic techniques are employed. The multidisciplinary weight management center is the busiest and most advanced in the region.

#### ACUTE CARE SURGERY

Preston Miller, MD, PhD, FACS Director, Emergency General Surgery Jason Hoth, MD, FACS Medical Director, Trauma

James H. Holmes IV, MD, FACS Director, Burn Center

R. Shayn Martin, MD, MBA, FACS Executive Director, Adult Critical Care

Four services are included within acute care surgery: burn, trauma, emergency general surgery and critical care surgery.

Atrium Health Wake Forest Baptist Medical Center first received the designation by the State of North Carolina as a Level I Trauma Center in 1982, and this distinction has been recently renewed by the State Emergency Medical Services Advisory Committee for the maximum four-year period.

In 2001, the American College of Surgeons conducted a site visit and verified the Medical Center as a Level I adult and pediatric trauma center. Atrium Health Wake Forest Baptist was the first trauma center in North Carolina with the pediatric distinction.

A Level I Trauma Center is a regional resource center that has the capacity of providing leadership and total care for every aspect of injury from prevention through rehabilitation.

The Burn Center is the oldest in the Carolinas and has been verified by the American Burn Association as an adult and pediatric burn center. One of only 67 verified centers in the nation, the Burn Center is internationally recognized and leads the U.S. in minimally invasive burn care.

#### VASCULAR SURGERY



Matthew Edwards, MD, FACS Section Head

Atrium Health Wake Forest Baptist Medical Center offers a state-of-the-art program for managing every aspect of

vascular disease—defined as disorders of arteries, veins and lymph vessels outside of the heart and brain. Few centers in the nation provide such breadth of expertise and services under one umbrella, dedicated entirely to patient care, education and research in vascular diseases.

Our faculty is unique in the region, combining board-certified, fellowship-trained specialists from both vascular surgery and vascular medicine in one program. Our physicians have more than 60 years of combined experience caring for patients with vascular diseases and in training the next generation of vascular specialists. Our nurses, technicians and administrative staff are committed to facilitating assessment and care through our clinics and diagnostic services as well as in-hospital services for diagnosis, treatment and research. For patients, this translates into a comprehensive evaluation culminating in an integrated care plan including medical therapies with minimally invasive endovascular procedures or traditional open surgery when indicated, for the broad spectrum of vascular diseases.

#### TRANSPLANT SURGERY

#### Robert Stratta, MD, FACS Section Head

Atrium Health Wake Forest Baptist transplantation services are unique in the region and encompass kidney, pancreas, heart, corneal and marrow

transplants. We are the largest adult and pediatric kidney/kidney-pancreas center in North Carolina and are among the top 30 most active kidney and kidney/pancreas transplant centers in the country.

Highlights of our transplant program:

- 130–150 adult deceased donor kidney transplants per year
- 25–30 living donor kidney transplants per year
- 10–15 pancreas transplants
- 4–8 pediatric transplants/year
- Average of 1 transplant every other day
- Average daily hospital census of 5–15 patients
- 50 dialysis access procedures per year



## Medical Simulation and Training

Our general surgery residents participate in a variety of training experiences throughout their residency. Workshops range from basic skills sessions at the table to complex, immersive, multidisciplinary clinical experiences where surgical teams are challenged with real-life scenarios.

- The Atrium Health Wake Forest Baptist Health Center for Applied Learning (CEAL) is an official testing and training site for the Society of American Gastrointestinal and Endoscopic Surgery Fundamentals of Endoscopic Surgery<sup>™</sup> and Fundamentals of Laparoscopic Surgery<sup>™</sup> courses.
- We have over 50,000 feet of space dedicated to medical simulation and training at the medical center and more than 20 years of experience.
- Our general surgery curriculum and trauma curriculum are designed to develop surgeons' leadership and team-based skills. The curriculum is based upon endemic data where historic events have been reviewed

and re-created. Emergency room teams and operating room teams including anesthesia, nursing, emergency medicine and technologists collaborate through transdisciplinary training to improve patient care through innovative education.

- General surgery residents participate in biannual didactic testing (Surgical Olympics) that promotes a positive training environment and also allows for self-assessment.
- Our general surgery and trauma curricula enhance situational awareness using elements of crew resource management. Residents participate in innovative re-creations of actual events involving actors or high-fidelity simulators and a diverse team of providers from anesthesia, nursing, emergency medicine and surgical specialists to improve patient care.
- Our porcine- and human-tissue labs advance residents' technical skill development and clinical decision making.



## Institutional Commitment to Quality Improvement

At Atrium Health Wake Forest Baptist, our mission is to improve health, elevate hope and advance healing – for all. Our goal is to be the national leader for health, learning and community.

Residents have numerous opportunities to join and be involved in quality improvement (QI) projects. QI is integrated into the curriculum and is a key aspect of the research enterprise.

- Residents participant in an integrated quality improvement training program including our institution's WakeWings program, as well as the Institute for Healthcare Improvement (IHI) Academy.
- Residents have ready access to numerous quality data sources for research and continuous quality improvement initiatives with faculty support. These resources include the National Quality Surgical Improvement Program (NSQIP) and the Trauma Quality Improvement Program (TQIP).
- Selected residents may participate in a Quality Improvement Fellowship during their research year(s).
- Residents participate in weekly Quality Performance Improvement reporting (QPI).



## Research at Atrium Health Wake Forest Baptist Medical Center

As a general surgery resident, you will have the opportunity for one to two years of research after PGY 3. Our research is funded by the Bradshaw Endowment.

Opportunities in this area include:

- Wake Forest Institute for Regenerative Medicine
- Population Health Sciences
- Atrium Health Wake Forest Baptist Comprehensive Cancer Center
- Virginia Tech-Wake Forest University School of Biomedical Engineering
- Clinical and Translational Science Institute
- Master's of Science in Molecular Medicine and Translational Sciences

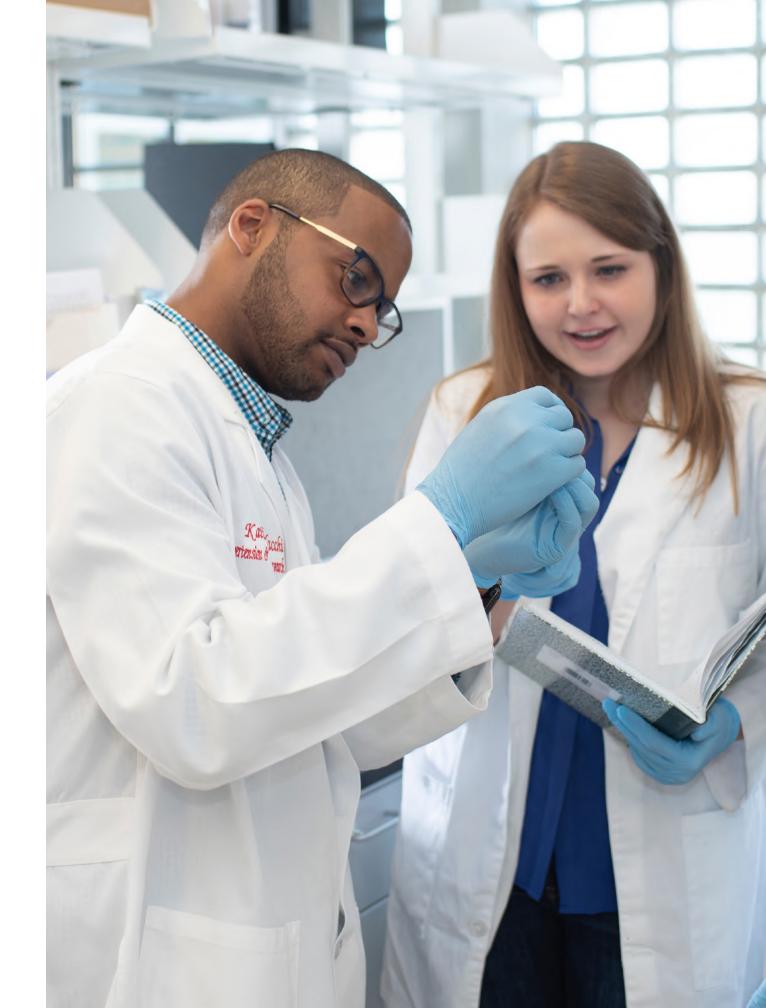
#### SURGICAL ONCOLOGY RESEARCH

Our surgical oncology research program has about 25 trials open. This program features:

- Cooperative group oncology trials
- Investigator-initiated trials
- Database-driven retrospective trials (HIPEC, liver, breast, esophagus, melanoma, pancreas)
- Collaborative data-sharing studies
- Tissue procurement infrastructure
- Quality of life/outcome trials

#### INSTITUTIONALLY SUPPORTED RESEARCH INSTITUTES AND CENTERS

- Atrium Health Wake Forest Baptist
  Comprehensive Cancer Center
- Cardiovascular Sciences Center
- Center for Artificial Intelligence
- Center for Biomedical Informatics
- Center on Diabetes, Obesity and Metabolism
- Center for Healthcare Innovation
- Center for Integrative Medicine
- Center for Precision Medicine
- Center for Prevention Science in Child and Family Health
- Center for Redox Biology and Medicine
- Center for Vaccines at the Extremes of Aging
- Childress Institute for Pediatric Trauma
- Critical Illness, Injury and Recovery Research Center (CIIRRC)
- Maya Angelou Center for Health Equity
- Neuroscience Clinical Trial and Innovation
  Center
- Sticht Center for Health Aging and Alzheimer's Prevention
- Wake Forest Clinical and Translational Science Institute
- Wake Forest Institute for Regenerative Medicine



## Atrium Health Wake Forest Baptist Medical Center Facts

- Total Licensed Beds System-wide **1,535** Winston-Salem **885**
- Inpatient Admissions and Observation Patients **59,493**\*
- Emergency Department Visits 208,892\*
- Other Outpatient Visits 1.92 million\*
- Total Research Awards \$319 million
- School of Medicine Faculty 2,600
- Registered Nurses 3,800
- House Officers (residents) and Fellows  ${\sim}800$
- Medical Students 573
- Total System Workforce ~22,000
- Largest employer in Forsyth County.
- Anchored by 885-bed tertiary care hospital, including 144-bed Brenner Children's Hospital and 167-bed Comprehensive Cancer Center on Winston-Salem campus.
- Five community hospitals (Alleghany Health, High Point, Lexington, Davie and Wilkes medical centers), three urgent care centers, more than a dozen emergency departments, more than 300 primary care and specialty clinics, and freestanding dialysis, imaging and endoscopy centers.
   \* Not including Wilkes

#### **OUR HISTORY**

- **1902** Wake Forest College Medical School is founded as a two-year program on the campus of Wake Forest College in Wake Forest, N.C.
- **1923** North Carolina Baptist Hospital opens in Winston-Salem as an 88-bed facility with a School of Nursing.
- **1939** A trust fund of \$750,000 established in the will of Bowman Gray Sr. is pledged to relocate the Wake Forest Medical School to Winston-Salem and expand its program to four years.

- **1941** Bowman Gray School of Medicine opens in Winston-Salem with 75 students.
- **1964** The first hand reimplantation in the United States is performed at the Medical Center by Jesse Meredith, MD.
- 2013 Wake Forest Innovations is created to drive the commercialization of products and services developed at Wake Forest Baptist. A 282,800-square-foot addition to the Comprehensive Cancer Center opens, consolidating inpatient and outpatient services under one roof.
- 2015 Wake Forest Baptist cardiac surgeons are the first in the state to perform a less-invasive aortic valve replacement procedure called transcaval valve replacement. The Abdominal Organ Transplant Program at Wake Forest Baptist performs its 3,000th kidney transplant.
- **2016** Bowman Gray Center for Medical Education opens at Innovation Quarter in downtown Winston-Salem.
- 2017 Julie Ann Freischlag, MD, FACS, FRCSEd(Hon), DFSVS, MAMSE, is named chief executive officer of Wake Forest Baptist, succeeding John D. McConnell, MD.
- **2019** Brenner Children's opens the new and expanded Dale and Karen Sisel Neonatal Intensive Care Unit, and Wake Forest Baptist Health resumes regular labor and delivery services for the first time in more than 40 years by opening a new Birth Center.
- **2020** A strategic combination of Atrium Health, Wake Forest Baptist Health and Wake Forest University forms a nextgeneration academic health system, known as Atrium Health.
- **2022** Advocate Health was created through the combination of Atrium Health and Advocate Aurora Health in the Midwest.
- **2023** Centennial Anniversary of founding of NC Baptist Hospital.



## Winston-Salem, North Carolina

Winston-Salem, a city of about 251,000 people according to U.S. Census Bureau, is located in Forsyth County in the Piedmont area of North Carolina.

It has been named among America's most livable cities, and features low traffic, a low cost of living, a low crime rate and temperate seasons.

The city's vibrant downtown area includes the Stevens Center for the Performing Arts, the Milton Rhodes Center for the Arts and Truist Stadium, home of the minor league Winston-Salem Dash baseball team, as well as a growing number of apartments, condominiums, lofts and restaurants. The Downtown Arts District, centered on Trade Street, is home to an ever-expanding lineup of unique galleries and shops.

Ten miles west, just off Interstate 40, is Forsyth County's Tanglewood Park, with its championship golf courses, tennis courts, swimming pool, picnic grounds, horseback riding, dog park and trail system. Winston-Salem is about an hour away from Hanging Rock and Pilot Mountain state parks and the Blue Ridge Parkway. Other mountain destinations are within a couple of hours' drive, and the beaches are 4-5 hours away. North Carolina is home to a burgeoning number of local wineries, many of which are within short drives of Winston-Salem.

The city is home to the University of North Carolina School of the Arts, the only institution in the U.S. composed of five top arts schools: dance, design and production, drama, filmmaking and music. Also in the city are the Winston-Salem Symphony, Piedmont Opera, the Southeastern Center for Contemporary Art (SECCA), Reynolda House with its gardens and American art collection, the Museum of Early Southern Decorative Arts (MESDA) and Old Salem, the site of the Moravian town founded in 1766 and from which the present city grew. Old Salem has been authentically restored and is open for tours.

For more information about the city, go to visitwinstonsalem.com.





Wake Forest University School of Medicine Graduate Medical Education



General Surgery Residency Program Surgery Administration | 5th Floor Watlington Hall Medical Center Boulevard, Winston-Salem, NC 27157