THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER

Department of Surgery

YEAR IN REVIEW | FY2017

The Ohio State University
Wexner Medical Center
Our goal is to deliver high-quality patient care, contribute to innovations in medicine through translational research and educate the next generation of physician leaders.
Letter from the Chair

Established in 1914, the Ohio State Department of Surgery has a long and respected tradition of excellence in clinical care, research and education. We specialize in some of the most complicated illnesses and conditions and serve as a surgical referral center for patients and physicians worldwide. Overall, our medical center has more than 1,300 patient beds, performs more than 44,000 surgeries per year, and has more than 17 million annual outpatient visits. The Department of Surgery is composed of nine surgical specialty divisions and seven centers. Collectively, the Department of Surgery performs more than 17,000 cases annually and was ranked 15th according to the Blue Ridge rankings for NIH funding among surgery departments nationally.

The department’s mission is consistent with The Ohio State University College of Medicine’s goal to deliver high-quality patient care, contribute to innovations in medicine through translational research, and educate the next generation of physician leaders. Our multidisciplinary approach combines the expertise of physicians from many specialties with the newest procedures and state-of-the-art facilities and technologies with an emphasis on quality and patient safety.

In this brochure, you will find more detail about each of our surgical divisions, including accomplishments from the previous year, as well as noteworthy procedures and referral details. We hope you will keep this brochure for reference, and we look forward to working with you to provide your patients the best possible care with truly cutting-edge surgical treatment.

Timothy M. Pawlik, MD, MPH, PhD
Chair, Department of Surgery
The Urban F. Meyer III and Shelley M. Meyer Chair for Cancer Research

To learn more about Ohio State and the Department of Surgery, visit wexnermedical.osu.edu/departments/surgery.

Department of Surgery Overview

Our Mission

The mission of The Ohio State University Department of Surgery is to deliver high-quality, safe patient care, contribute to innovations in medicine through basic and translational research and clinical outcomes studies, and educate medical students and postgraduate trainees.

The Department of Surgery has a long and respected tradition of excellence in clinical care, research and education. The department is composed of nine surgical specialty divisions:

- Cardiac Surgery
- Colon and Rectal Surgery
- General and Gastrointestinal Surgery
- Pediatric Surgery
- Surgical Oncology
- Thoracic Surgery
- Transplantation Surgery
- Trauma, Critical Care and Burn
- Vascular Diseases and Surgery

In addition to these divisions, the department also includes several multidisciplinary centers:

- Burn Center
- Center for Bariatric Surgery
- Center for Minimally Invasive Surgery
- Comprehensive Hernia Center
- Comprehensive Wound Center
- COPPER Laboratory
- Trauma Center

Faculty

Recent recruitment efforts brought many new faculty members to the department. In addition to those below, ongoing recruitment continues to attract exceptional specialists.

To join the surgical team at Ohio State, one of largest and most diverse academic medical centers in the country. We’re continually looking for the best and brightest. See available opportunities at wexnermedical.osu.edu/recruitment.
Ohio State Surgery by the numbers FY2017

Research Funding: $8.9 million

Total Faculty: 93
- 65 clinical faculty
- 10 research faculty
- 1 administrative faculty
- In addition, at Nationwide Children’s Hospital we have 16 clinical and 1 administrative faculty

Admissions: 7,906*

wRVUs: 563,869

Number of OR Cases: 17,796

Number of Residents: 46
- 59% male/41% female
- 32% underrepresented minorities in medicine
- 97% provided positive review of Ohio State surgical residency in 2017 ACGME survey

Number of Fellows: 26

*OSUMC Patient Statistics
## Surgery Divisions by the numbers FY2017

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| Cardiac Surgery wRVUs     | 71,946   |          |          |          |          |          |          |          |          |
| Colon and Rectal wRVUs    | 28,929   |          |          |          |          |          |          |          |          |
| General and GI wRVUs      |          |          |          |          |          |          |          |          |          |
| Pediatric wRVUs           |          |          |          |          |          |          |          |          |          |
| Surgical Oncology wRVUs   |          |          |          |          |          |          |          |          |          |
| Thoracic wRVUs            |          |          |          |          |          |          |          |          |          |
| Transplantation wRVUs     |          |          |          |          |          |          |          |          |          |
| Critical Care and Burn wRVUs|        |          |          |          |          |          |          |          |          |
| Vascular wRVUs            |          |          |          |          |          |          |          |          |          |

| wRVUs                     | 71,938   | 45,537   |          |          |          |          |          |          |          |

**THE OHIO STATE UNIVERSITY Department of Surgery**
Ohio State believes in the power of research to drive innovation. We’ve grown into one of the largest research powerhouses in the nation, with more health sciences colleges on a single campus than any other American university. Ohio State Wexner Medical Center is one of only 59 members of a National Institutes of Health consortium, and our success in obtaining NIH and other grants has advanced the development of our extensive laboratory and clinical infrastructure. In each surgery division profiled in this brochure, you will see the number of active grants as well as the sizeable investments entrusted to our researchers.

The department has extraordinary research productivity in basic and translational sciences, specifically in the areas of tissue injury and repair, inflammation, immunology, transplantation, cancer and regenerative medicine. The majority of current extramural federal funding is directed toward such research. Current federal funding primarily originates from the National Institutes of Health and the Department of Defense.

- Publication profile and citation data of department faculty may be viewed in Google Scholar using the keyword OSU SURGERY at the following link: go.osu.edu/google-scholar

The rich research environment of the department is leveraged to mentor surgical scientists toward their K and R awards. The department is currently ranked 15th (up from 25th in 2015) out of 76 departments of Surgery by the Blue Ridge Institute (2016 data), based on NIH funding.

- Current publications from the department may be reviewed at go.osu.edu/currentpubs

Pictured at left: Chandan Sen, PhD, director of the Ohio State Center for Regenerative Medicine, holds a chip that could revolutionize medical care. In laboratory tests on mice at The Ohio State University Wexner Medical Center, the chip was able to heal serious wounds with a single touch by converting skin cells into vascular cells.

Research

Department of Surgery FY17 Research

Total funding: $8.9 million
Total number of active grants: 241
Number of principal investigators: 61

Blue Ridge ranking for NIH funding: 15th

Total number of active grants: 241
Number of principal investigators: 61

Blue Ridge ranking for NIH funding: 15th

Health Services and Clinical Outcomes Research

The mission for our new Health Services and Clinical Outcomes Research Center is to develop a thriving group of surgeon-scientists whose research will determine the biopsychosocial underpinnings of surgical disease, test innovative approaches to improving surgical care, and optimize the quality, costs, and outcomes for surgical populations in central Ohio and beyond through robust multimodal health services research.

Dr. Heena Santry, a federally funded health services researcher, joined the department in September as vice chair for Health Services Research and will lead the development of the center.

The center offers workspace, computational resources, external data sources, mentorship, as well as the institutional, regional and national network to achieve the following goals:

1. To empower faculty to conduct high-quality surgical health services research (e.g., epidemiology, survey research, qualitative research, demography, geographic information systems, implementation science, community-based participatory research, comparative effectiveness research, quasi-experimental design)

2. To develop and sustain the pipeline of extramurally funded surgical health services researchers within the department

3. To connect health services research faculty within the department to the many population health and public health research entities across The Ohio State University campus with shared interests in delivering high-quality surgical care equitably and cost effectively.
Residency
Ohio State offers a General Surgery residency with rotations at University Hospital, The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James), Ohio State Richard M. Ross and University Hospital East, as well as Nationwide Children’s Hospital.

An interactive, responsive education program is vital for the best training. To that end, we recently revised our weekly lectures based on resident input and now provide a more participatory format with ample opportunity for questions and answers. Residents are no longer segregated, which provides upper-level students opportunity to reinforce their knowledge through collaboration with younger residents. Our residents are also required to augment their education with one year of professional development. Many do this through lab research or advanced fellowships, including basic science research and quality improvement projects.

Research
Upon completion of their second or third year of clinical training, General Surgery residents interested in pursuing a career in medical research at a teaching institute can dedicate one to two years, without clinical responsibilities, toward research education and training. A core curriculum is augmented with individualized electives and seminars, as well as a mentored research program. Degree options include the Master of Medical Science, MPH, MBA, or an alternate MS degree (such as the MS in anatomy).

To support their research initiatives, all General Surgery resident trainees must apply for extramural funding. Sources may include institutional T32 training grants, the Ohio State Pelotonia Fellowship Program for cancer research, individual postdoctoral F32 grants, mentor/PI funded R01s or diversity supplement awards, medical society awards or the University Fellowship Award.

Fellowships
Subspecialty surgical fellowships at Ohio State include advanced therapeutic endoscopy, cardiothoracic, colorectal, critical care, pediatrics, abdominal transplant, oncology, vascular, minimally invasive surgery, and bariatrics.

Global Surgery
Our PGY4 residents may choose a one-month international elective rotation to explore complex surgical care in a variety of settings, including high-, middle-, and low-income countries. This adds to their worldview and helps them establish far-reaching, valuable professional connections. The Global Surgery program is led by Benedict Nwomeh, MD, MPH.

Education
In the Department of Surgery, we strive to provide a setting that is conducive to learning. As an academic, research-oriented institution, we have a long tradition of training leaders in surgery, and our graduates have achieved prominence and success in both community practice and at major academic institutions nationwide.

Students
by the numbers
46 residents; 26 fellows
Number of ACGME-Accredited Surgical Residencies: 8
Number of Approved Specialty Fellowships: 7
The newest clinical programs introduced at Ohio State include:

- **Ex Vivo Lung Perfusion Program**—Our Comprehensive Transplant Center is the first in Ohio to offer this process, which uses a mechanical system to resuscitate, warm, nourish and repair donor lungs outside the body, thus improving the odds that they can be used for transplant. Bryan Whitson, MD, PhD, pictured left in the center, is one of the pioneers of this process at Ohio State.

- **Minimally Invasive VAD Placement**—We have the largest and longest running VAD program in central Ohio, and our surgeons have even developed a technique to perform the implant procedure through two small chest incisions and “off-pump,” which avoids the need for cardiopulmonary bypass, reduces potential for transfusions and shortens recovery times. Ohio State is the fourth medical center in the nation certified to implant the SynCardia temporary Total Artificial Heart (TAH-t).

- **Valve Replacement**—The structural heart disease program at Ohio State continues to thrive with an increasing number of valve procedures performed either conventionally, minimally invasively or through transcatheter approaches.

- **Thoracoscopic Atrial Fibrillation Ablation**—We have an entire floor at the Ohio State Ross Heart Hospital dedicated to caring for patients with arrhythmia. We are the only central Ohio hospital to perform the thoracoscopic maze procedure, the most advanced surgical intervention for atrial fibillation available today. This procedure, performed by surgeons and electrophysiologists, uses a combined epicardial and endocardial approach to increase the ablation success rate.

- **Aortic Arch Debranching Procedures**—Ohio State’s surgeons are pioneering this less-invasive option that combines bypass of the arch vessels and stenting for the treatment of aortic arch aneurysms, ultimately reducing patient risk and time needed in the hospital.

**Transcatheter Aortic Valve Replacement**

As a minimally invasive replacement for traditional open heart surgery, transcatheter aortic valve replacement (TAVR) at Ohio State improves recovery time and is often an excellent option for patients who are not open heart surgery candidates due to advanced age or other limiting health factors.
Weekly Scholars Program offers eight-week summer immersion in cardiac, thoracic and congenital surgery, includes one American Association for Thoracic Surgery Scholar (if awarded) and up to three summer scholars.

- Medical student CT Surgery Interest Group with 10 monthly educational sessions, two wet labs, two suture clinics and a transplant pager for 35 medical students.
- Developing integrated sixth year thoracic fellowship program.

Publications and Research
- 66 peer-reviewed manuscripts
- 10 book chapters
- Grants and other research accomplishments:
  - As principal investigator:
    - Transcatheter aortic valve replacement with the Medtronic aortic valve replacement system in patients at low risk for surgical aortic valve replacement.
    - Evaluating the benefit of concurrent tricuspid valve repair during mitral surgery.
  - As co-investigator:
    - NIH Center of Accelerated Innovations for “Hyaluronan Enhanced and Biomechanically Designed Transcatheter Aortic Valve Prosthesis R01 AI124045”
    - National results presentation for PREVENT trial at American Association of Thoracic Surgery.
    - Ex vivo lung perfusion program.

Awards
- Dr. Peter Lee—T.W. Halstead Young Investigator Award from the American Society for Gravitational and Space Biology.
- Dr. Mark Galantowicz—2017 Castle Connolly Top Doctors.
- Hua Zhu, PhD—Outstanding Junior Faculty at the American Heart Association BCVS annual meeting and presenter at the third annual ACRE/APS Symposium.

Division of Cardiac Surgery specializes in the treatment of the most complex cardiac surgery patients through:
- Complex reoperations
- Coronary artery bypass surgery
- Heart valve surgery
- Aortic surgery
- Mitral valve surgery
- Surgery for hypertrophic obstructive cardiomyopathy
- Minimally invasive surgery
- Endovascular procedures
- Transcatheter valve replacement and repair procedures
- Heart and lung transplantation
- Mechanical circulatory support
- Extracorporeal membrane oxygenation (ECMO)

To refer, please call the Division of Cardiac Surgery at 614-293-5502 or fill out the one-page OSUWMC Referral Form available at wexner-medical.osu.edu/ReferralForm then fax your referral to 614-293-1456.
Our newest clinical program serves patients with pelvic floor disorders. This program began in July 2015 and is now offered two days per month at our convenient Outpatient Care Upper Arlington location. The clinic provides comprehensive testing, evaluation and a range of treatment options for men and women diagnosed with a variety of pelvic floor disorders.

Other fast-growing programs in our division include minimally invasive and robotic surgery options for treatment of diseases of the colon and rectum. This treatment affords patients the advantages of a shorter hospital stay, less blood loss, reduced pain and quicker recovery. In the Division of Colon and Rectal Surgery, we have leveraged the expertise of Syed Husain, MBBS, and Amber Traugott, MD, to expand our robotic volume for colectomy and lower anterior resection, or LAR.

As our division heads into the coming year and beyond, we do so with a continued emphasis on world-class patient care and a pledge to use research, medical innovation and the education of tomorrow’s surgeons to improve the lives of those we treat.

Pelvic Floor Disorders

One in four women will have a pelvic floor disorder in her lifetime. Surgeons like Amber Traugott, MD, working with Ohio State’s Pelvic Floor Disorder Clinic, offer patients a range of treatment options from lifestyle changes, physical therapy and medication to surgery.
Faculty

Mark Arnold, MD
Director, Division of Colon and Rectal Surgery
Vice Chairman for Surgical Education, Department of Surgery

Clinical Faculty

William Cirocco, MD
Alan Harzman, MD
Syed Husain, MBBS
Amber Traugott, MD

Education

- 2016 was inaugural for one-year ACGME-accredited fellowship
- Weekly colon and rectal surgery and case conference begun in 2016
- Interdisciplinary conferences:
  - Monthly multidisciplinary conference for IBD
  - City-wide colorectal journal club
  - Weekly tumor board conference

Publications and Research

- 11 papers published
- Two poster presentations completed at the American Society of Colon and Rectal Surgeons in Seattle, Washington in June 2017
- Podium presentation by Jason Weiss, MD, at the Ohio Valley Society of Colon and Rectal Surgeons in Cleveland, Ohio in March 2017
- William Cirocco, MD, named to the editorial board of Diseases of the Colon & Rectum
- Three grants funded

Awards

- Dr. William Cirocco has been nominated to the ASCRS Executive Council
- Drs. Alan Harzman, Mark Arnold and William Cirocco—2017 Castle Connolly Top Doctors
- Dr. William Cirocco—President Elect, Midwest Surgical Association

Referral Information

Ohio State Wexner Medical Center offers comprehensive surgical programs for the treatment of a wide range of colon and rectal conditions, such as:

- Colon and rectal cancer, including primary, recurrent and metastatic cancers
- Inflammatory bowel disease
- Pelvic floor disorders
- Anorectal disease
- Benign colonic disease

To refer, please call the Division of Colon and Rectal Surgery at 614-293-3230 or fill out the one-page OSUWMC Referral Form available at wexnermedical.osu.edu/ReferralForm then fax your referral to 614-293-1456.
Highlights from this past year include noteworthy growth in three key programs:

**Comprehensive hernia care**
- Our robotic hernia program is the highest-volume academic general surgery program in the country using the da Vinci robotic platform. We accept referrals for all types of hernias, including inguinal, umbilical, ventral, incisional, flank and lumbar hernias.
- We provide state-of-the-art treatment with evidence-based protocols to optimize complex abdominal wall hernia treatment plans involving a multidisciplinary approach which includes general, plastic, trauma and bariatric surgeons.

**Comprehensive weight management, metabolic and bariatric surgery**
- Ohio State is a Bariatric Surgery Center of Excellence, performing more than 400 primary and revisional cases last year.
- Surgical weight loss options offered include Roux-en-Y gastric bypass, sleeve gastrectomy, laparoscopic adjustable gastric banding, revisions for weight loss and/or complications from previous bariatric surgery and intragastric balloons placed endoscopically.
- Our program will soon offer single anastomotic duodenal switch as a surgical weight loss option.

**Multidisciplinary foregut clinic**
- Within the foregut program, we offer multiple operative options, innovative endoscopic approaches and clinical trials for disorders such as gastroesophageal reflux disease, Barrett’s esophagus, primary and recurrent paraesophageal and diaphragmatic hernias, achalasia and other esophageal dysmotility disorders, and esophageal and gastric cancers.
- Innovative procedures include POEM for achalasia and Stretta®, Linx® and EndoStim® for GERD.

The Division of General and Gastrointestinal Surgery at Ohio State Wexner Medical Center continues to show its strength as a nationally recognized leader in minimally invasive general surgery. As a high-volume clinical division, the group excels in providing expert, multidisciplinary care in foregut surgery, bariatric surgery, hernia repair and complex abdominal wall reconstruction, advanced therapeutic endoscopy and hepatobiliary surgery.

**Minimally Invasive Esophagectomy**
Patients suffering from a range of esophageal conditions or cancer can benefit from the innovation of Ohio State’s minimally invasive esophagectomy, performed by surgeons like Kyle Perry, MD, including a decrease in operating time, less blood loss, reduced pain and shorter length of stay.
Education

- As part of the Center for Minimally Invasive Surgery (CMIS), our division continues to offer some of the most desirable fellowships in the country accredited by the Fellowship Council:
  - Two fellowship positions in advanced minimally invasive and bariatric surgery
  - One fellowship position in advanced therapeutic endoscopy and gastrointestinal surgery
- The CMIS also hosted four continuing medical education programs in the last year on topics including the care of the bariatric surgery patient, minimally invasive and robotic hernia repair, evolving strategies in minimally invasive surgery and a women in surgery event. These events target practicing surgeons, fellows, residents, students and other allied healthcare professionals. Course offering details can be found at cmis.osu.edu.

Publications and Research

- 54 papers published in peer-reviewed journals
- Total active grants:
  - Federal/state (NIH/DOD/MPB)
    - As principal investigator, 13 active grants totaling $4,622,881
    - As co-investigator, five active grants totaling $669,409
  - Industry/foundations/NIH SBIR
    - As principal investigator, 16 active grants totaling $2,019,617

Awards

- Dr. David Renton—2016 Ohio State Exceptional Physician Peer Award
- Drs. Sabrena Noria, Bradley Needleman, and Michael Meara—2016 Outstanding Achievement in Patient Service
- Dr. Bradley Needleman—2017 Castle Connolly Top Doctor
- Dr. Daniel Gallego Perez—2017 Ohio State University Lurnley Interdisciplinary Research Award
- Dr. Chandan Sen—2016 recipient of the Gerritsen Award by The Microcirculatory Society
- Dr. Sashwati Roy—President Elect, Wound Healing Society

Faculty

Bradley Needleman, MD, FACS
Interim Director, Division of General and Gastrointestinal Surgery
Director, Center for Minimally Invasive Surgery
Director, Comprehensive Weight Management, Metabolic and Bariatric Surgery Program

Clinical Faculty
Andrei Manilchuk, MD
Michael Meara, MD, MBA
Vimal Raaja Narula, MD
Bradley Needleman, MD
Sabrena Noria, MD, PhD
Kyle Perry, MD
David Renton, MD
Richard Schlanger, MD, PhD
Jennifer Schwartz, MD

Research Faculty
Chandan Sen, PhD
Sashwati Roy, PhD
Savita Khanna, PhD
Daniel Gallego-Perez, PhD

Referral Information
The surgeons in the Ohio State Division of General and Gastrointestinal Surgery accept referrals for all patients with general surgical needs including:
- Bariatric surgery
- Foregut diseases
- Hernia repair
- Gastrointestinal and hepatobiliary surgery
- Wound care

To refer, please call the Division of General and Gastrointestinal Surgery at 614-293-3230, Bariatric Surgery at 614-366-6675 or fill out the one-page OSUWMC Referral Form available at wexnermedical.osu.edu/ReferralForm then fax your referral to 614-293-1456.
Nationwide Children’s Hospital ranks among the top 10 pediatric research institutes in the U.S. and is the only hospital that is an American College of Surgeons-designated Level I pediatric trauma center, an American Burn Association-verified pediatric burn center and a Commission on Accreditation of Rehabilitation Facilities (CARF)-approved pediatric rehabilitation center. Since its establishment in 2013, the Center for Robotic Surgery at NCH has performed approximately 500 robotically assisted advanced minimally invasive operations, making it one of the busiest and most well-established centers of its kind in the U.S. and abroad. Under the leadership of Marc Michalsky, MD, professor of Clinical Surgery and Pediatrics, the center presently consists of ten highly trained general and urologic surgeons spanning several key pediatric surgical service lines at Nationwide Children’s, including urology, general and thoracic surgery, adolescent bariatric surgery, surgical oncology, and colorectal and pelvic reconstructive surgery.

The truly integrated program seeks to leverage specific skills and insight across a number of subspecialties in order to provide safe and effective robotic solutions for a multitude of surgical problems. In addition to ongoing expansion of the clinical program, the center has also partnered with industry to develop new indications for robotic surgical intervention. We are also developing a didactic curriculum for advanced pediatric robotic training, reaffirming Ohio State and Nationwide Children’s role as a leader in this important and evolving surgical treatment modality.

Center for Robotic Surgery

Robot-assisted laparoscopic surgery is one minimally invasive approach used by our pediatric surgeons to perform highly complex movements on a very small scale that are impossible to make with the human hand directly, like that being performed by Marc Michalsky, MD, in the photo.
Education

• Fellowships include:
  - Pediatric surgery (RRC approved)
  - Surgical critical care (RRC approved)
  - Pediatric minimally invasive surgery
  - Pediatric bariatric surgery
  - Pediatric colorectal surgery

• Pediatric Surgery program hosts an annual Clatworthy Visiting Professorship that brings nationally recognized pediatric surgeons to Nationwide Children’s Hospital

• Colorectal surgery program hosts a multidisciplinary annual Pediatric Colorectal, Motility and Pelvic Reconstruction Conference

Publications and Research

• 97 peer-reviewed publications in 2016/2017 (PubMed indexed only)
• 67 presentations at national meetings in 2016/2017
• 16 presentations at international meetings in 2016/2017
• 26 federally funded grants totaling more than $20 million
  - NIH/federal funding places Nationwide Children’s Hospital Pediatric Surgery as one of the top five programs in the U.S.

Awards

• The faculty in Pediatric Surgery have been mentors to trainees who received 18 national and international highly competitive awards for their research in the past five years

• Nationwide Children’s Hospital’s Adolescent Bariatric Surgery Program received accreditation as an MBSAQIP adolescent bariatric center

• Drs. Gail Besner, Christopher Breuer, Renata Fabia, Johnathan Groner, Brian Kenney, Denis King, Marc Levitt, Marc Michalsky, Lawrence Moss, Benedict Nwometh—2017 Castle Connolly Top Doctors

Referral Information

Our surgeons perform robotic surgery, as well as advanced laparoscopic, endoscopic and thoracoscopic techniques in our Pediatric Robotic Surgery and Minimally Invasive Surgery programs. Other specialties include active clinical programs focused on pediatric colorectal surgery, surgical oncology, surgical endocrinology, trauma, burns, chest wall deformities, bariatric surgery, inflammatory bowel disease, hepatobiliary surgery, neuromodulation, and general pediatric surgery.

To refer, please call the Division of Pediatric Surgery at 614-722-3900.
In the Division of Surgical Oncology, all clinical and basic research activities are devoted to the evaluation and management of cancer. Our goal is to provide excellence in clinical cancer care; to educate medical students, residents, and fellows; and to conduct clinical and basic research. Realizing that no cancer is routine because each malignancy is biologically unique, our highly trained surgical specialists and subspecialists offer the most current research-based surgical treatment techniques—from complex open surgery to minimally invasive robotic procedures—to provide personalized care for each individual.

OSUCCC – James surgical oncologists have extensive experience in advanced robotic procedures, including distal pancreatectomy and gastric resections. Our minimally invasive surgery program also is expanding to offer robotic Whipple operations to patients with malignant and premalignant lesions of the pancreas—the first time this procedure will be available in central Ohio. The mortality rate from a Whipple procedure has decreased to one to two percent at experienced centers. Among advantages of minimally invasive approaches are shorter lengths of stay, reduced blood loss and less postoperative pain.

Division of Surgical Oncology

At The Ohio State University Comprehensive Cancer Center – James Cancer Hospital and Solove Research institute (OSUCCC – James), our surgical oncology team—one of the largest and most experienced in the nation—contains world-renowned experts who reach across medical disciplines (medical oncologists, surgical oncologists, radiation oncologists, molecular and biological pathologists, genetic scientists and others) to design the best treatments for targeting each patient’s specific disease. U.S. News & World Report ranked the OSUCCC – James 23rd in the nation on the magazine’s 2017 list of America’s Best Hospitals for cancer care.

Robotic Whipple

The Division of Surgical Oncology and the OSUCCC – James are preparing to offer the Whipple procedure this fall. Our surgeons have extensive robotic and minimally invasive surgery experience, which is critical to safely implementing this procedure for our patients—all of whom will be placed on an enhanced recovery pathway to help decrease complications and lengths of stay.
Education

- Complex general surgical oncology fellowship program received ACGME accreditation on first attempt
- Three fellows, all with 100 percent pass rate in 2016
- Recent approval by publisher for board review book

Publications and Research

- 115 publications
- 30 grants; noteworthy studies as principal investigator:
  - UM1 supplement for early therapeutic trials with phase 2 intent (sponsored by the National Cancer Institute)
  - Breast and bowel treatment protocols agreement (sponsored by the NSABP Foundation Inc.)
  - Targeting tissue factor as a novel oncotarget for immunotherapy of triple-negative breast cancer using a second-generation ICON (sponsored by Falk Medical Research Trust)
  - National Cancer Institute Year 5 = SARC sarcoma SPORE Core A and Project 1; Rational HDACi-based therapeutic combinations for the treatment of genetically complex soft tissue sarcoma (SARC = Sarcoma Alliance for Research through Collaboration; SPORE = Specialized Programs of Research Excellence)
  - Reactivating apoptosis: a potential therapeutic target for desmoid tumors with STNNB1 S45F mutation (sponsored by Desmoid Tumor Research Foundation)

Awards


Faculty

William Carson, MD
Interim Director, Division of Surgical Oncology

Clinical Faculty
Sherif Abdel-Misih, MD
Doreen Agnese, MD
Jordan Cloyd, MD
Mary Dillhoff, MD
William Farrar, MD
Valerie Grignol, MD
John Harrison Howard, MD
Timothy Pawlik, MD, PhD
John Phay, MD
Stephen Povoski, MD
Carl Schmidt, MD
Lawrence “Drew” Shirley, MD
Alicia Terando, MD

Research Faculty
Zhiwei Hu, PhD
Anne Strohecker, PhD

Referral Information

Surgical oncology physicians at Ohio State are trained in general surgery, have been certified by the American Board of Surgery, have additional training in surgical oncology and are active members of the Society of Surgical Oncology. Special areas of expertise include gastrointestinal cancer, breast cancer, melanoma, thyroid cancer, head and neck cancer, and soft tissue sarcoma.

To refer, please call the Division of Surgical Oncology via The James Line at 614-293-5066 or fill out the one-page OSUWMC Referral Form available at wexnermedical.osu.edu/ReferralForm then fax your referral to 614-293-1456.
Of particular note from the past fiscal year, Robert Merritt, MD, and Desmond D’Souza, MD, (pictured left), performed over 100 robotic-assisted operations. Division surgeons are able to perform complex pulmonary resections and esophageal surgery with the da Vinci Xi robot with excellent results. Our thoracic surgeons have performed 65 lobectomy procedures with minimal morbidity, low hospital stays and a zero mortality rate. Building on these successes, we look to expand our robotic surgery volume and increase our use of the robot for esophagectomy procedures in patients with esophageal carcinoma.

Our division has been named a Center of Excellence for photodynamic therapy of lung and esophageal cancers. Our Lung Volume Reduction Surgery program is the first in the country to earn a two-year certification of distinction by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

In addition to other areas of treatment, our surgeons also support programs in thoracic oncology, collaborating with the lung and gastrointestinal disease sites at The Ohio State University Comprehensive Cancer Center – James Cancer Hospital and Solove Research Institute (OSUCCC – James). We share many clinical trials with medical oncology, as well as radiation oncology through Cancer and Leukemia Group B (CALGB), Radiation Therapy Oncology Group (RTOG) and American College of Surgeons Oncology Group (ACOSOG).

Ultimately, it is our goal in the Division of Thoracic Surgery to work closely with other disciplines, including anesthesiology, hematology, oncology and pulmonary medicine, to deliver the best possible care and a multidisciplinary treatment plan for each patient.

Robotic Surgery
Ohio State has always been at the forefront of pioneering new ways to perform traditional surgeries in less invasive ways, and this extends to our thoracic surgeons, who routinely use robotic techniques to improve outcomes and recovery. In every procedure they perform, our surgeons are backed by some of the most experienced robotic nurses and technicians in the country.
OHIO STATE DEPARTMENT OF SURGERY

Division of Thoracic Surgery

Referral Information
The surgeons in the Ohio State Division of Thoracic Surgery accept referrals for patients with an extensive range of conditions, including:

- Achalasia
- Barrett’s esophagus
- Carcinoid tumor
- Esophageal cancer
- Gastroesophageal reflux disease (heartburn)
- Hiatal hernia
- Lung cancer
- Myasthenia gravis
- Thymoma

Our surgeons also offer an extensive range of services, including:

- Endobronchial ultrasound (EBUS)
- Endoscopy
- Lung volume reduction surgery
- Open lung biopsy
- Photodynamic therapy (PDT)
- Robotic surgery
- Thoracotomy
- Tracheal resection and reconstruction

To refer, please call the Division of Thoracic Surgery at 614-293-9059 or fill out the one-page OSUWMC Referral Form available at wexner-medical.osu.edu/ReferralForm then fax your referral to 614-293-1456.

Faculty
Robert Merritt, MD
Director, Division of Thoracic Surgery
Associate Program Director, Cardiothoracic Surgery

Clinical Faculty
Desmond D’Souza, MD
Peter Kneuertz, MD
Susan Moffatt-Bruce, MD, PhD, MBA

Education
- ACGME cardiothoracic surgery fellowship, two accepted per year
- Cardiothoracic Surgery Summer Scholars Program, offering three to four medical students a rotation in the department every summer
- Robotic Surgery Skills Lab where thoracic faculty train fellows on basic operation of the robot and teach basic skills
- Early clinical exposure for medical students through Cardiothoracic Interest Group participation

Publications and Research
- 21 peer-reviewed articles
- Four grants
  - As principal investigator:
    - Health Resources and Services Administration (HRSA) patient safety grant for $4 million
    - Private Sector Advisory Group (PSAG) sponsored for $10,000 to improve patient safety with a digital platform for implementation, adherence and outcomes
  - As co-investigator:
    - National Institute on Aging for $8 million
    - HRSA for $2 million for patient care training and enhancement

Awards
- Drs. Robert Merritt and Susan Moffatt-Bruce—2017 Castle Connolly Top Doctors
For fiscal year 2017, the center’s volumes have increased by 50 percent, with our surgeons performing 447 heart, lung, liver, kidney, kidney/pancreas and pancreas transplants. With regard to specific procedures, Ohio State is one of the largest and most experienced kidney/pancreas centers in the U.S., and we rank in the top 10 percent of kidney transplant programs by volume in the country. The most recent data released by the Scientific Registry of Transplant Recipients (SRTR) shows that Ohio State’s one-year patient survival is best in Ohio for liver and heart transplantation and also exceeds national outcomes for all transplanted organs.

One particularly noteworthy procedure during this past year at Ohio State occurred on Valentine’s Day, when our transplant team successfully performed a five-way living donor kidney chain, with five donors and five recipients. It was the second-largest all-internal transplant chain ever completed at the Ohio State Wexner Medical Center (and in the state of Ohio), and each recipient had a relationship with a donor, but not their donor from whom they received their lifesaving transplant.

In pursuit of treatment breakthroughs, we’re also focused on basic, translational and clinical research to help us develop the next generation of surgical innovation. This includes multidisciplinary research conducted in collaboration with Nationwide Children’s Hospital at the Center for the Epidemiological Study of Organ Failure and Transplantation (CESOT) to improve outcomes in transplantation worldwide, as well as our participation in the Acute Liver Failure Study Group, a collaborative network of 28 hospitals that have studied more than 3,000 cases of acute liver failure. What we learn at the bench, we apply bedside.

Five-Way Kidney Donor Chain

On Valentine’s Day 2017, Ohio State transplant surgeons orchestrated a five-way living donor kidney transplant chain consisting of five patients and five donors. Each recipient had a relationship with a donor, but not their donor from whom they received their lifesaving kidney transplant. This five-way, single-institution kidney exchange was the second-largest to date in the state of Ohio.
Education

- Two-year abdominal transplant fellowship; 21 applications received for 2018-2020
- Applying for liver transplant fellowship accreditation

Publications and Research

- 20 published papers
- Eight national speaking engagements for 2016
- Six clinical trials:
  - Cinryze® for the Treatment of Acute Antibody-Mediated Rejection
  - QPI-1002 for Prevention of Delayed Graft Function
  - Sirolimus and Everolimus in Combination with Low Dose Cyclosporine
  - Comparing Everolimus and Sirolimus in Renal Transplant Recipients
  - T Cell Immune Profiles and Alloantibody Levels and Isotypes from Peripheral Blood in Renal Transplant Recipients
  - Islet Allotransplantation for the treatment of Type 1 Diabetes
- Eight grants
  - Advanced Research Training in Immunology for Surgery Trainees (ARTIST) from National Institutes of Health (NIH, NIAID)
  - $25,000 DOS Lockwood Early Career Development Award for Investigation of Cytokine Gene Polymorphisms, T Cell Profiles and Alloantibody Levels and Isotypes from Peripheral Blood in Primary Kidney Transplant Patients
  - $50,000 two-year faculty development grant for Hepatic Stellate Cell Mediation of Ischemia Reperfusion Injury in Liver Transplantation
  - Type 1 NKT Cell Mediated Enhancement of CDB+ Cytolytic T Cells
  - Novel Mechanisms Regulating Post-Transplant Alloantibody Productions
  - $1.5 million from NIH ROI for Novel Mechanisms Regulating Post-Transplant Alloantibody Productions
  - Demographic and Clinical Factors and Transplant Outcomes Associated with Hospital Readmissions within the First Year after Kidney Transplantation in AADT Recipients sponsored by Ohio State Comprehensive Transplant Center
  - Development of a Perfusion to Support Extended Duration Normothermic Ex-Vivo Organ Perfusion sponsored by the Ohio Solid Organ Transplantation Consortium (OSOTC)
Ohio State's Division of Trauma, Critical Care and Burn provides the highest level of care for life-threatening emergencies. Standout elements of our program include:

- **Level I Trauma Center:** With this status, University Hospital qualifies as a comprehensive regional resource capable of providing total care for every aspect of injury, from prevention through rehabilitation. We frequently accept patients in transfer from every other Level I Trauma Center in Ohio, and we have many advanced therapies available, including ECMO and hyperbaric oxygen therapy.

- **Emergency General Surgery:** Our acute care surgery services provide urgent and emergent general surgical care in a wide variety of surgical disease states, including necrotizing soft tissue infections, gastrointestinal bleeding, bowel perforation, appendicitis, acute pancreatitis, and complications after cardiovascular and cancer surgery.

- **Burn Care:** The Ohio State Comprehensive Burn Center is the only adult burn center in central Ohio verified by the American College of Surgeons and the American Burn Association. We treat more than 700 patients each year with burns, ranging from mild to complex, and serious skin conditions. Our burn center offers physical, occupational and speech therapy, as well as social work, psychological, spiritual and nutritional services. Our inpatient burn rehabilitation at Dodd Hall has been ranked among the best in the country by U.S. News & World Report.

- **Surgical Critical Care:** We provide care on three surgical intensive care unit services. We offer the most up-to-date treatment in hemodynamic management, advanced ventilator techniques, nutritional support, management of surgical infections, and the management of other complications, in settings that stress the care of the whole patient. Our goal is to always make certain that families are fully involved in all major decisions.

**Division of Trauma, Critical Care and Burn**

The Division of Trauma, Critical Care and Burn focuses its efforts on the clinical care, research and education pertaining to urgent and emergent surgical problems. These include multiple trauma, burns, urgent and emergent general surgery conditions and surgical critical care.

The division was formed in March 2006 to enhance the Department of Surgery’s clinical care of critically ill surgical patients and patients with urgent and emergent surgical diseases, to develop excellent educational programs in those areas, and to support discovery of new medical knowledge.

The mission of the division is to improve people’s lives through innovation in research, education and patient care related to our patient population.

**Level I Trauma Center**

University Hospital is designated a Level I Trauma Center, meaning we’re certified to provide the highest level of advanced multispecialty care for traumatic injuries. Surgeons from the Division of Trauma, Critical Care and Burn are joined by experts in Emergency Medicine, Orthopedics, Neurosurgery, and Maxillofacial and Plastic Surgery, as well as many other specialties, to provide exceptional care.
Education
• Surgical critical care fellowship, four
• Acute care surgery fellowship
• Burn fellowship

Publications and Research
• 46 manuscripts
• Best new member presentation at the Central Surgical Association meeting
• Creation of an ACS registry
• Editorial board membership for Selected Readings in General Surgery, ACS Case Studies in General Surgery and ACS Operative Decision Making
• Contributor to ACS Position Paper on GME Reform
• Medical Innovation projects in collaboration with The Ohio State University College of Engineering and Business:
  − Biomedical engineering capstone course for device development funded by NIH
  − Development of wireless real-time physiologic monitoring system
  − Applying minimal footprint technology to overcoming language barriers
  − Applying wrist-worn accelerometers to improve mobility in the ICU sponsored by FAME
• Fourteen grants totaling over $2 million
• Service to national organizations:
  − Dr. Eiferman is a member of the Central Surgical Association Membership Committee and the Association for Academic Surgery Publication Committee
  − Dr. Lindsey is a member of the American Association for the Surgery of Trauma Geriatric Trauma Committee

Awards
• Dr. David Lindsey
  − Outstanding Expert Educator Award for Part 2 of LSI
  − Leonard Tow Humanism in Medicine Award
• Dr. David Evans
  − Preceptor for clinical site for Doctor of Clinical Nutrition (DCN) Residency at Rutgers University
  − Emergency Medicine Contribution Award
• Dr. Daniel Vazquez
  − Collaborator with the capstone course in Biomedical Engineering

Referral Information
For referral to Ohio State’s Comprehensive Burn Center, please call 614-293-2876.
We offer both inpatient and outpatient services including:
• Advanced dressing options to minimize pain, scarring and other complications
• Wound care and complex wound management
• Treatment for all burns, small to large, with special emphasis on:
  − Third-degree burns
  − Burns to the face, hands, feet, genitalia, perineum and joints
  − Electrical burns and lightning strikes
  − Chemical burns
  − Burns in patients with comorbid conditions

Our surgeons address the full scope of surgical critical care, trauma, burns, emergency general surgery and acute care surgery. To have a patient transferred to our care, call the Transfer Center at 614-293-4444 (toll-free 800-824-8236).
The mission of the Division of Vascular Diseases and Surgery aligns with those of The Ohio State University Wexner Medical Center and the College of Medicine:
- to deliver the highest quality of care to patients throughout central Ohio who are suffering with peripheral vascular disease
- to contribute to innovations in medicine through translational research and clinical outcome studies
- to educate medical students and postgraduate trainees

Strategic planning remains a priority for our division as we focus on identifying the best ways to fulfill our mission and truly create the future of medicine to improve people’s lives. Two key elements of our focus are a commitment to leadership in personalized health care and striving to become a high-performance organization that is a workplace of choice.

This strategic approach has yielded results:
- The physicians in the Division of Vascular Diseases and Surgery achieved a patient satisfaction survey score in the 99th percentile for both the second and third quarters of fiscal year 2017.
- Attending physicians performed more than 1,828 surgical procedures and 7,443 outpatient clinic visits in FY17.
- Division faculty and fellows published 97 scholarly articles, abstracts, posters and presentations.

Ohio State offers comprehensive general vascular disease and surgery services, from initial visit to diagnostic testing, interventional or minimally invasive endovascular treatments, open surgical treatments, and most importantly, ongoing lifelong post-treatment care.

Specialized care is available in our dedicated programs, including:
- Aortic Center for Excellence for thoracic aortic aneurysms
- Vein Solutions clinic for varicose veins and related conditions
- Arterial Surgery Clinic
- Comprehensive Wound Center
- Vascular Interventional Clinic
- Limb Preservation Program
- Outlying vascular clinics to improve patient accessibility beyond Columbus

**Limb Preservation Program**

Ohio State vascular surgeon Michael Go, MD, has taken a leadership role in our Limb Preservation Program, a new service within the Comprehensive Wound Center that offers a multidisciplinary approach and advanced techniques to avoid amputation and save limbs.
Education
- Two fellows annually
- Graduating our 30th vascular fellow this year
- Fellows participated in the Advanced Vascular Surgery Surgical Skills and Simulation Assessment Program at William Beaumont Hospital
- Finishing fellow presented poster at the Society for Clinical Vascular Surgery and gave oral presentation at the Midwestern Vascular Surgical Society

Publications and Research
- 28 peer-reviewed publications; four non-peer-reviewed
- 18 grants
  - As principal investigator:
    - NIH $434,000 to leverage a novel nano-electroporation technique to reprogram endothelium and test its regenerative potential in a model of ischemic brain injury
    - Ohio State Discovery Themes Initiative for $30,000 supporting collaboration with the College of Engineering to develop novel scanning electron microscopy approach to visualize brain collaterals during ischemic stroke
  - As co-investigator:
    - Department of Defense $19 million for collaboration with Ohio Willow Wood and Walter Reed Army Medical Center to develop a next-generation lower limb prosthesis that prospectively adapts vacuum suspension to ensure optimal fit and performance

Awards
- Lynn Cox, RN—Ohio State Wexner Medical Center Excellence in Leadership Award, acknowledging superior overall achievement in leadership
- Dr. Cameron Rink—Judge, 14th Annual Russell Klein Nutrition Research Symposium and the 10th Annual Translational to Clinic (T2C) Wound Care Conference, both at Ohio State. He also served on the College of Medicine Grievance and Appeal Committee, as well as conference session chair for the 10th Annual T2C Conference session “Residual Limb Health and Next Generation Prosthetics”
- Drs. Jean Starr, K. Craig Kent, Michael Go and Patrick Vaccaro—2017 Castle Connolly Top Doctors
- Drs. Jean Starr and Mounir Haurani—Top 10 percent patient satisfaction for Ohio State
- Dr. Patrick Vaccaro—SVS Distinguished Fellow

Referral Information
The physicians in the Ohio State Division of Vascular Diseases and Surgery accept referrals for patients with a variety of issues, including:
- Open and endovascular repair of aneurysms (abdominal, thoracic)
- Bypass surgery on peripheral arteries
- Carotid endarterectomy
- Carotid stenting
- Amputations
- Peripheral arterial intervention and repairs
- Venous repairs
- Debridements
- Angiograms
- Interventions (angioplasty and stents)
- Venograms
- IVC filters
- Rib removal for thoracic outlet syndrome
- Creation and repairing AV fistula
- Kidney and intestinal artery bypasses or stents

To refer, please call the Division of Vascular Diseases and Surgery at 614-293-8536 or fill out the new one-page Universal OSUWMC Referral Form available at wexnermedical.osu.edu/ReferralForm then fax your referral to 614-293-1456.
Refer a Patient? It’s never been easier.

Our referral team will provide you with the personalized help you and your patients require—just call the numbers below and fax our one-page referral form. If you have any questions during any part of the referral process or about the status of your referral, please call our referral specialists at 614-293-5123.

- Abdominal Transplantation Surgery (Kidney, Liver, Pancreas): 800-293-8965
- Bariatric Surgery: 614-366-6675
- Cardiac Surgery: 614-293-5502
- Colon and Rectal Surgery: 614-293-3230
- General and Gastrointestinal Surgery: 614-293-3230
- Heart Transplantation: 800-538-1886
- Lung Transplantation: 866-204-3411
- Pediatric Surgery: 614-722-3900
- Surgical Oncology: The James Line 614-293-5066
- Thoracic Surgery: 614-293-9059
- Vascular Diseases and Surgery: 614-293-8536

For all our divisions except Pediatric and Transplantation Surgery, complete our one-page OSUWMC Referral Form available at wexnermedical.osu.edu/ReferralForm then fax your referral to 614-293-1456.

To download organ transplant referral forms, visit wexnermedical.osu.edu/txreferral.

After we have received your fax, we will manage the scheduling and notification process.

- We will contact your patient directly to schedule a convenient time and location for their appointment.
- As referring physician, you will receive confirmation of the appointment for your records via mail, fax or OSU DocLink.

Disclaimer: This app is a pilot for the Department of Surgery and is not a complete listing of every surgeon at Ohio State. Information for ENT-Facial Plastic Surgery, Orthopaedic Surgery, Neurosurgery, Urology, Plastic Surgery and Ob/Gyn Surgery is not available at this time. You may not text or email personal health information to a physician.

Introducing an easy way to communicate directly with Ohio State surgeons.

Use our New Surgery Referrals app to quickly access surgeons’ cell phone numbers, email addresses and more.

New Surgery Referrals to The Ohio State University Wexner Medical Center

The app gives physicians a direct line of contact to consult and collaborate with a surgeon, improving the referral experience. Discuss a case directly with these Ohio State divisions of surgery:

- Cardiac Surgery
- Colon and Rectal Surgery
- General and Gastrointestinal Surgery
- Surgical Oncology
- Thoracic Surgery
- Transplantation Surgery
- Trauma, Critical Care and Burn
- Vascular Diseases and Surgery

Download now at go.osu.edu/referralapp
Use activation code W3xm3r$urg3ry