



Department of Surgery
Fiscal Year 2025
Annual Report

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Message From the Chair

Dear colleagues and friends,

As chair of the Northwestern Medicine Department of Surgery, I use the structure of the fiscal year as an opportunity to frame the successes of the department. Fiscal year 2025 (September 2024 to August 2025) contained an array of accomplishments by our faculty, trainees, students and staff, continuing our reputation as one of the top programs in the country.

I want to highlight our high number of surgical procedures and our top-ranked clinical and training programs. We had an increase in National Institutes of Health (NIH) funding (remaining in the top 10). With a greater number of grant proposals, department faculty achieved multiple firsts in the grant types they were awarded. This results in an exciting and dynamic research environment that is essential for supporting scholarly pursuit of surgical knowledge of the highest quality.

As we enter our 167th year as a department, we keep our vision trained on shaping its future. We continue our vigorous, strategic expansion phase with recruitment of top talent across all divisions. A new vice chair has been appointed to lead our ongoing efforts in Regional Integration. And we continue to elevate our programs and put an emphasis on our strategic priorities in the other domains as well: Education, Research and Innovation, Faculty Development, Equity and Clinical Operations.



It is because of the talents and efforts of our team that we can pursue innovations in person-centered care, research and education. We remain committed to attracting and nurturing the top talent, which is a critical reason for the department's success. I am incredibly proud of what we have achieved so far, and I look forward to working together to reach even greater heights. This report is a summary of our accomplishments over the last fiscal year. Thank you for taking the time to review it.

A handwritten signature in black ink that reads "Hasan B. Alam".

Hasan B. Alam, MD

Loyal and Edith Davis Professor of Surgery
Professor of Cell and Developmental Biology
Chair, Department of Surgery, Northwestern
University Feinberg School of Medicine
Surgeon-in-Chief, Northwestern Memorial Hospital

Department Mission and Vision

The Northwestern Medicine Department of Surgery is committed to delivering world-class, comprehensive and equitable surgical care; attracting and nurturing the talents of students, residents and fellows; and conducting groundbreaking basic and translational research. Our mission and vision statements guide us on our path to continued excellence.

Mission

Within a dynamic, innovative environment, we will:

- Provide the highest-quality, evidence-based, comprehensive and compassionate patient care across a broad range of surgical specialties;
- Develop leaders in academic surgery through state-of-the-art training programs that are conducive to outstanding education for all learners across the career continuum;
- Expand the frontiers of knowledge by advancing research, innovation, creativity, collaboration and the translation of surgical sciences to patient care.

Vision

To be a distinguished surgical department that delivers comprehensive and innovative care within an integrated academic health system, pursues research that defines the future of surgery, trains the next generation of surgical leaders and serves as a national and global destination for patients.

Department of Surgery by the Numbers

800+

FACULTY AND STAFF
INCLUDING:



\$31.4 MILLION
in grant funding

250+
Faculty

125+
University research
and admin staff

\$15.2 MILLION
in NIH funding

150+
APPs

50+
Hospital admin staff



125+
Trainees

100+
Clinic staff that
support your
surgery practice



No. 10
2024 NIH
BLUE RIDGE RANKING



63
Active clinical trials



15,500+
OR cases

109
Active grants



611,000+
WRVUs



Department of Surgery Organization

Department leadership



Hasan B. Alam, MD
Chair



Satish Nadig, MD, PhD
Vice Chair, Faculty Development



Anne Stey, MD
Scientific Director, NQUIRES



Jason Hyunsuk Ko, MD
Vice Chair, Clinical Operations



Akhil Chawla, MD, FACS
Vice Chair, Regional Integration



Salva Balbale, PhD
Scientific Director, NQUIRES



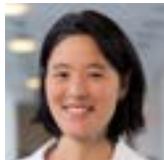
Amy L. Halverson, MD
Vice Chair, Education



Alyssa M. Vela, PhD
Vice Chair, Equity



Daniela P. Ladner, MD
Vice Chair, Research and Innovation



Karen J. Ho, MD
Director, Resident Research

Division leadership



Michael Shapiro, MD
Division Chief, Acute
Care Surgery



Douglas R. Johnston, MD,
Division Chief,
Cardiac Surgery



**Yue-Yung Hu, MD,
MPH**
Associate Program
Director, General
Surgery Residency



Gregory Dumanian, MD
Division Chief,
Plastic Surgery



**Thomas Inge, MD,
PhD,**
Division Chief,
Pediatric Surgery



Rebecca Williams, MD
Associate Program
Director, General
Surgery Residency



Michael Rosen, MD,
Division Chief,
Gastrointestinal
Surgery



**Satish Nadig, MD,
PhD,**
Division Chief, Organ
Transplantation



Dean Schraufnagel, MD
Associate Program
Director, General
Surgery Residency



Nora Hansen, MD,
Division Chief, Breast
Surgery



Eric Hungness, MD,
Section Chief, MIS
and General Surgery



**Joseph A. Herrold,
MD, MPH**
Director, Surgery
Clerkship



Shishir Maitheh, MD,
Division Chief,
Surgical Oncology



Vitaliy Poylin, MD,
Section Chief,
Colorectal Surgery



Kalvin C. H. Lung, MD,
Associate Director,
Surgery Clerkship



Ankit Bharat, MD,
Division Chief,
Thoracic Surgery



Amy L. Halverson, MD,
Program Director,
General Surgery
Residency



Tadaki Tomita, MD,
Sub-Internship
Director, Surgery
Clerkship



**Mark K. Eskandari,
MD,**
Division Chief,
Vascular Surgery

Department of Surgery Domains

Department of Surgery vice chairs highlight fiscal year 2025 accomplishments and describe goals for the coming year.

Regional Integration

The Department of Surgery vice chair for Regional Integration collaborates with department leadership, health system leadership and surgeons to advance the integration and expansion of clinical service lines across Northwestern Medicine. This role emphasizes relationship development, collaboration and alignment across surgical specialties, with the goal of building cross-regional programming that interconnects and strengthens surgical care delivery.

In March 2025, I assumed the role of Department of Surgery vice chair for Regional Integration. In an effort to further the department's commitment to aligning surgical services across Northwestern Medicine, our team has engaged leaders across divisions and regions to identify opportunities for expansion and cross-regional collaboration, particularly around recruitment and programmatic growth. Early efforts have focused on advancing service line discussions in General Surgery, Surgical Oncology and Vascular Surgery, with a shared goal of enhancing access to complex care close to home where appropriate. These initiatives aim to alleviate capacity constraints, improve patient access and strengthen competitiveness in a dynamic market. We have also begun reviewing surgical transfer patterns to optimize access and ensure patients receive timely, coordinated care at the most appropriate site of care. Together, these steps represent the foundation of a more connected surgical enterprise that broadens reach, supports subspecialty growth and improves coordination across the health system.

In parallel, as surgeon lead for the department's Clinical Trials Core, I have worked to expand access and infrastructure for clinical trial research, engaging new faculty as well as health network faculty in systemwide trial participation. Opportunities for educational expansion have also been identified, ensuring that regional integration enriches the training experience for our residents and fellows. These early efforts highlight our progress in fostering collaboration, broadening patient access and advancing academic opportunity across Northwestern Medicine.



Update by
Vice Chair
Akhil Chawla,
MD, FACS

Education

Congratulations to our 2025 residency graduates.

General Surgery residents

- › Jessie Ho, MD, Vascular Surgery Fellowship, Northwestern University
- › Audra Reiter, MD, GI/MIS Fellowship, Medical College of Wisconsin
- › Suhail Zeineddin, MD, Pediatric Surgery Fellowship, University of Arkansas



Plastic Surgery residents

- › Sofia “Sonj” Aronson, MD, Microsurgery Fellowship, MD Anderson
- › Jennifer “Jenny” Bai, MD, University of Maryland



Vascular Surgery

Resident:

- › Eric B. Pillado, MD, Stanford University School of Medicine

Fellow:

- › Michael T. Kemp, MD

Cardiothoracic Surgery

Resident:

- › Aaron Clark, MD, Advanced Fellowship in Cardiac Surgery Fellowship at Northwestern Medicine

Fellow:

- › Christopher Johnson, MD, Virginia Cardiovascular Specialists

Advanced fellows (Advanced Specialty Training Programs and McGaw):

- › Miia Lehtinen, MD, PhD, Advanced Fellowship, Toronto General Hospital
- › Olivier Vaillancourt, MD, Advanced Fellowship, Cardiac Robotic Surgery, New York
- › Andrew O’Connell, MD, Physician, Newfoundland, Canada

Faculty spotlight

Dean P. Schraufnagel, MD, is a thoracic surgeon who joined the Department of Surgery in 2024, and serves as one of the associate program directors for the general surgery residency program. He is an assistant professor in the Division of Thoracic Surgery. He previously worked at Cleveland Clinic, where he was awarded the resident teaching award in the division of thoracic surgery three years in a row. He also serves as the program director for the lung transplantation fellowship program, and the education director of the Canning Thoracic Institute.



His most recent educational research projects have been involved with robotics, simulation and curriculum development. Nationally, he is on the Thoracic Surgery Directors Association and a member of the Workforce on E-Learning and Educational Innovation for the Society of Thoracic Surgeons.

Recent publications by Dr. Schraufnagel include the following:

Tasnim S, Dhamija R, Sudarshan M, Raymond D, Raja S, Murthy S, Yun J, **Schraufnagel D**. [Practice till you can't get it wrong! Making a fundoplication simulator for today's surgical trainees](#). Presented at: Western Thoracic Surgical Association Annual Meeting; June 25, 2025; Dana Point, California.

Chen L, Orosa D, Ahn G, Putnam J, Layoun H, Saddiqui HU, Hammoud MS, Mahboubi R, **Schraufnagel D**, Bribresco A. [Are adult thoracic patient education materials designed with patients in mind?](#) *J Thorac Cardiovasc Surg*. 2024;167(5):1654-1656.e5. doi:10.1016/j.jtcvs.2023.12.029.

Leadership in residency

General Surgery residents are extending their leadership skills to the McGaw House Staff Association. Saieesh Rao, MD, is serving as president, and Whitney Jones, MD, is serving as vice president.

In these roles, Dr. Rao and Dr. Jones are working to improve the trainee experience at Northwestern Medicine. They interact with residents and fellows across various programs, fostering connections and building a supportive network that goes beyond departmental boundaries.



Research and Innovation

With Carl Atkinson, PhD; Bowen Wang, PhD; and Gabe Conway, BS, the team and I continue to build and strengthen our research community within the department. We are ranked 10th in NIH funding among all U.S. departments of surgery. Over past 5 years, our faculty published 2,592 peer-reviewed articles, of which 458 (18%) were in the top 10% of subject area based on citation frequency distribution and 1,344 (56%) were in the top 50% of subject area.

Over the past fiscal year, the department was awarded \$31.4 million in total extramural awards and \$15M in NIH awards. The department submitted 126 grants (\$144 million). Sixteen faculty submitted new R01s (with seven faculty members submitting their first R01). Among Department of Surgery faculty, 43 (up from 33 in FY24) received extramural funding, and 21 (16 surgeons and 5 researchers) received federal funding (nationally <2% of surgeons are NIH funded). Five new members joined the department with significant research focus.

To support early career faculty, an inaugural Department of Surgery seed award was created. Recipients including Atieh Hajirahimkhan, PhD; Brian Brajcich, MD; Akhil Chawla, MD, FACS; and Willemijn Schaefer, MSc, PhD, were awarded \$75,000 in total. We also awarded seven enterprise data warehouse grants (\$17,500 total) and two bridge awards for scored/unfunded NIH grants (\$20,000 total). Importantly, the department provided \$2.3 million in cost-share (filling the gap between NIH salary cap and surgeon salary).

Faculty were nominated to many societies with intention, and many were accepted into prestigious academic societies (such as the Society of University Surgeons and American Association for Physicians).

The following initiatives continue to grow:

- › R01 bootcamp by Dr. Atkinson: Five faculty participated, two submitted R01s and three are in final preparation.
- › Biostatistics: Adin-Cristian Andrei, PhD, continued providing in-kind biostatistical support.
- › Clinical trials: Dr. Chawla expanded the team and started 12 new large clinical trials.
- › Resident research: Karen J. Ho, MD, directs our resident research team. There are 14 current lab residents, nine of whom will obtain master's degrees.





- › Surgeons Promoting Academic Surgeons and Scientists (SURPASS): Dr. Wang continued hosting biweekly meetings with great participation.
- › Northwestern Quality Improvement, Research, and Education in Surgery (NQUIRES): Anne Stey, MD, and Salva Balbale, PhD, continued their weekly lecture series, with work-in-progress meetings that support postdoctorate researchers and faculty.
- › Grants administration: Darlene Ratcliff managed the team's expansion (Candice Cooper, Siobhan Kenny).

These initiatives contributed to our department's growth and success in FY25 and serve as a testament to the skills of our faculty and staff and our dedication to advancing research excellence. In FY26, we will continue to grow our cores (grant administration, clinical trials), offer research lectures relevant to all (such as how to write a good manuscript) and provide individualized research support for faculty.

Clinical Operations

Fiscal year 2025 exemplified the year-over-year growth of clinical operations that we have experienced within the Department of Surgery. Compared with FY24, overall revenues for the department at the Academic Medical Center (AMC) increased by 4.8% to \$443,331,218 in FY25. The total of 611,279 work relative value units (wRVUs) generated by Department of Surgery clinicians was 1.5% greater than budgeted for FY25.

We have made coordinated efforts to optimize efficiency along each step of the patient care pathway: outpatient access, OR utilization and inpatient length of stay (LOS). In FY25, the average new patient lag days across the department remained stable at 42.4 days, which was a decrease of 0.6 from FY24, and clinician Likelihood to Recommend scores remained high at 92 (of a possible 100). At the AMC, the Department of Surgery controls a greater proportion of OR blocks than any other department, and our monthly in-block utilization was 80%, along with a monthly total utilization of 84%, both of which represented continued strong performance of the Department of Surgery relative to other departments in the AMC. In terms of enhancing patient throughput on the inpatient side, among 7,497 inpatient admissions, the average LOS was 8.6 days. The observed-to-expected ratio for the Department of Surgery decreased to 0.81 in FY25 compared with 0.88 in FY24, which represented continued improvement.

During this past year, our Clinical Operations Strategic Workgroup implemented various tactics to improve operational efficiency within the department at the AMC. We teamed up with Social Work to improve inpatient LOS by placing a social worker in the Cardiac Surgery clinic to meet patients preoperatively to determine whether the patients would likely require continued care at an acute inpatient rehabilitation (AIR) facility, at a subacute rehabilitative (SAR) facility or with home health nursing. Over the course of the 5-month pilot, approximately 250 patients had been admitted and discharged, and early Social Work involvement led to a 48% reduction in LOS for patients discharging to SAR/AIR compared with baseline and a 10% reduction in LOS for patients who received home health nursing. The increased bed capacity and net financial benefit that resulted from having a social worker in the Cardiac Surgery clinic were so substantial that the AMC has funded a full-time social worker in the Cardiac Surgery clinic for FY26. The Clinical Operations Strategic Workgroup is now working with Social Work to expand these concepts across other divisions within the department for FY26.



Update by
Vice Chair
**Jason Hyunsuk
Ko, MD**

Another pilot that we started in FY25 placed a nurse navigator within the service center to triage patients with breast cancer—both “internal” patients who were diagnosed at Northwestern Medicine and “external” patients who came to Northwestern Medicine for a second opinion—improving access to our clinics and in turn our ORs. The nurse navigator in the service center has worked closely with an oncology nurse navigator in the breast center to optimize efficiencies for our patients with breast cancer. These nurse navigators have been so helpful that an additional nurse navigator was hired in September 2025. We hope to expand the work of nurse navigators to other divisions within the department in the future.

As we work to optimize operational efficiency, we are excited to continue these efforts in FY26 to improve the patient experience while enhancing the already high-quality care that we provide. Our many successes within Clinical Operations are a testament to the combined effort of the faculty, advanced practice providers (APPs), clinical and administrative staff, residents, and fellows within the Department of Surgery, and I am confident that the department will only see more success in FY26 as it continues to expand and strengthen.



Faculty Development

As vice chair of Faculty Development in the Department of Surgery at Northwestern University, I have seen our programs foster the growth, engagement and advancement of surgical faculty across all career stages.

Key initiatives include leading the Summer Faculty Development Series, which offers interactive workshops on academic promotion, research strategy, mentorship and work-life integration. The position also oversees Targeted Leadership Grand Rounds, designed to bring national experts to discuss leadership principles, innovation and diversity in academic surgery.

In collaboration with institutional partners, the vice chair helps expand coaching and executive development opportunities, providing individual guidance to enhance leadership effectiveness and career satisfaction. Additionally, the Vice Chair directs the FAST (Faculty Academic Skills Training) program, a structured mentorship and peer-support platform that equips early and mid-career faculty with the tools and networks necessary to thrive within an academic environment.

Together, these programs create a cohesive framework for professional development, leadership cultivation and faculty excellence within the department.



Update by
Vice Chair
Satish Nadig,
MD, PhD

Equity

In FY25, we focused on reassessing the strategic goals and priorities developed by the 2024 task force to align with the shift in focus toward patient-centric health equity strategies. We have continued to build on past work by maintaining and strengthening our health equity curriculum. Specifically, we established our first annual Health Equity Grand Rounds with invited speaker Demetria Bolden, PhD, of the University Colorado presenting “Who gets the gold standard? Surgical decision-making in an unequal system,” in May 2025.

The Cultural Complications M&M Conference continued quarterly with excellent participation and strong resident involvement. In preparation for FY26, a division-level needs assessment was completed, the feedback from which is currently being used to shape the next steps in department health equity efforts. The goal is to engage faculty in specific clinical initiatives and collaborate with other vice chairs to incorporate health equity into every relevant domain.



Update by
Vice Chair
Alyssa Vela,
PhD

Division Updates

The divisions within the Department of Surgery at Northwestern University Feinberg School of Medicine provide specialized education and training programs, conduct valuable basic and translational research and provide outstanding surgical care through our affiliated hospitals.

Faculty Promotions



Marco Ellis, MD was promoted to associate professor of Plastic Surgery.



Samuel S. Kim, MD was promoted to professor, Thoracic Surgery.



Amna Daud, MBBS, MPH was promoted to research associate professor, Transplant Surgery.



Michael A. Howard, MD was promoted to clinical associate professor, Plastic Surgery.

Acute Care Surgery

The Division of Acute Care Surgery offers world-class surgical care and provides leadership and education in the fields of trauma, critical care and acute care surgery.

Key achievements



Clinical

- › In FY25, the division saw approximately 1,217 trauma contacts, which was a 20% increase over the previous 5 years.
- › Compared with FY25, our wRVUs were 6% higher and charges were 10% higher. This fiscal year, we generated 53,324 wRVUs.
- › We saw 446 outpatients and operated on 1,635 patients.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

Perez MM, Hassan T, Mittal M, Li M, Bagdady K, Hackenberger PN, Dumanian GA, **Shapiro M**. [Early outcomes of contaminated midline incisional hernia repair with mesh suture](#). *Hernia*. 2025;29(1):247. doi:10.1007/s10029-025-03422-8.

Carroll A, Garg R, Furmanchuk A, Lundberg A, Silver CM, Adams J, Moklyak Y, Tomasik T, Slocum J, Holl J, **Shapiro M**, Kong N, Andrei AC, Kho A, **Stey AM**. [Prediction of time to hemodynamic stabilization of unstable injured patient encounters using electronic medical record data](#). *Shock*. 2024;62(5):644-649. doi:10.1097/SHK.0000000000002420.

Waddle SD, Reyes AM, Thomas A, Betz ME, Johnson JK, Royan R, Ellyin A, Jang A, Crandall M, **Stey AM**, Campbell BT. [The intersection between firearm injury prevention and surgical practice: a qualitative study](#). *J Trauma Acute Care Surg*. 2025;99(1):79-88. doi:10.1097/TA.0000000000004612.

Robinson JR, **Stey A**, Schneider DF, Kothari AN, Lindeman B, Kaafarani HM, Haines KL. [Generative artificial intelligence in academic surgery: ethical implications and transformative potential](#). *J Surg Res*. 2025;307:212-220. doi:10.1016/j.jss.2024.12.059.

Meredyth N, Liu Y, Haddad D, Raza S, Pascual J, Martin ND. [Recognizing the need for goals of care conversations among critically ill surgical patients](#). *J Surg Res*. 2025;306:554-560. doi:10.1016/j.jss.2024.12.033.

Haddad DN, **Meredyth N**, Hatchimonji J, Merulla E, Matta A, Saucier J, et al. [Racial disparities in end-of-life suffering within surgical intensive care units](#). *Trauma Surg Acute Care Open*. 2024;9(1):e001367. doi:10.1136/tsaco-2024-001367.

Chandra S, Popovic J, Singhal NK, Watkins EA, Dodiya HB, Weigle IQ, Salvo MA, Ramakrishnan A, Chen Z, Watson T, Shetti A, Piehl N, Zhang X, Cuddy L, Sadleir KR, **Schwulst SJ**, Prakriya M, Gate D, Sisodia SS, Vassar R. [The gut microbiome controls reactive astrocytosis during A \$\beta\$ amyloidosis via propionate-mediated regulation of IL-17](#). *J Clin Invest*. 2025;135(13):e180826. doi:10.1172/JCI180826.

Brito AMP, **Tatebe LC**, Bhamidipati CM, Guyette FX, Wisinewski SR, Luther JF, Sperry JL, Schreiber MA. [Pragmatic early predictors of survival after trauma](#). *J Surg Res*. 2025;314:245-254. doi:10.1016/j.jss.2025.07.017.

Key faculty honors and awards

Joseph A. Herrold, MD, MPH, was awarded the M3/M4 Clinical Teaching Award for excellence in the clinical education provided to medical students.

Anne Stey, MD, was accepted into the Northwestern University Leadership Education Advancement Program (NU-LEAP).

Hasan B. Alam, MD, received a grant from the National Institute of General Medical Services on September 12, 2024.

Title: Metabolism and mitochondrial energetics therapy for septic shock
Current year award: \$187,000

Acute Care Surgery Faculty



Hasan B. Alam, MD



**Joseph A. Herrold,
MD, MPH**



Nabil M. Issa, MD



**Nicole A. Meredyth,
MD**



**Steven J. Schwulst,
MD**



**Michael Shapiro,
MD**



Anne Stey, MD



Leah Tatebe, MD

Health System Clinician



**Michael J.
Sutherland, MD**

Breast Surgery

In collaboration with the Robert H. Lurie Comprehensive Cancer Center of Northwestern University, the Division of Breast Surgery delivers compassionate, multidisciplinary care for patients with breast disease. Our fellowship-trained surgeons and dedicated care teams provide evidence-based treatment across the academic and community settings, ensuring a welcoming, patient-centered experience. The division remains committed to enhancing patient outcomes and experience and is proudly accredited through the National Accreditation Program for Breast Centers. We are deeply invested in advancing breast cancer care through clinical research and academic collaboration.

Innovation and highlights

We continue to invest in the future of breast surgical oncology through our Lynn Sage Breast Surgery Oncology Fellowship program, established in 1996 and celebrating its 20th anniversary next year under the leadership of Nora Hansen, MD. Thanks to philanthropic support secured by Dr. Hansen, the program remains a cornerstone of our commitment to training the next generation of breast surgeons. The fellowship program is certified through the Society of Surgical Oncology.

To meet the growing demand for breast disease and cancer care, we were pleased to welcome Olga Kantor, MD, to the Division of Surgical Oncology in December 2025. Her expertise will expand access to specialized surgical services and strengthen our capacity to meet patient needs.

Key achievements



Clinical

- › In response to increasing patient volume, we recruited a second nurse navigator to enhance care coordination across multidisciplinary teams to improve the patient experience.
- › Our High-Risk clinic experienced a 40% growth in patient volume. To meet this demand, we are adding advanced practice providers to improve access.



Research

- › Preliminary results from the Promise Study, an R01-funded project involving Swati Kulkarni, MD, R01, indicate that the common menopause medication Duavee® may help prevent breast cancer. These findings were presented at the American Society of Clinical Oncology and received widespread media coverage.
- › Susan Clare, MD, was awarded an R21 grant from the National Cancer Institute.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

Dennis S, Tsukioki T, Kocherginsky M, Qi AK, DeHorn S, Gurley M, Wrubel E, Luo Y, **Khan SA**. [Neoadjuvant chemotherapy response and genetic susceptibility in recently parous women with breast cancer: a retrospective analysis](#). *Ann Surg Oncol*. 2025;32(7):4855-4864. doi:10.1245/s10434-025-17204-0.

Dunsmore VJ, Snyder BS, Gareen IF, Lehman CD, **Khan SA**, Romanoff J, Gatsonis C, Corsetti RL, Rahbar H, Spell DW, Han LK, Bumberry JR, Miller KD, Sparano JA, Comstock C, Park E, Wagner LI, Carlos RC. [Quality of life among patients with ductal carcinoma in situ](#). *JAMA Netw Open*. 2025;8(7):e2518887. doi:10.1001/jamanetworkopen.2025.18887.

Adams EJ, Zheng V, Cooper R, Warwar S, Brown D, Schulte L, Kline D, **Kulkarni SA**. [Barriers to recruitment in a pre-surgical trial for ductal carcinoma in situ: an exploratory qualitative study of at-risk women, survivors, and providers](#). *Breast Cancer Res Treat*. 2025;213(1): 33-42. doi:10.1007/s10549-025-07742-2.

Guo M, Novo J, Schacht D, **Kulkarni S**. [Pleomorphic adenoma in the setting of triple-negative breast cancer: a case report](#). *Clin Case Rep*. 2025; 13(5): e70458. doi:10.1002/ccr3.70458.

Neven P, Stahl N, Vidal M, Martín M, Kaufman PA, Harbeck N, Hunt KK, Carter S, Bidard F-C, Fasching PA, Aftimos P, Wheatley D, Hamilton E, Aft R, **Kulkarni S**, Schmid P, Bhawe M, Ismail-Khan R, Karacsonyi C, Estrem ST, Nguyen B, Ozbek U, Yuen E, Rodrik-Outmezguine V, Ciruelos E. [A preoperative window-of-opportunity study of oral SERD, imlunestrant, in newly diagnosed ER-positive, HER2-negative early breast cancer: results from EMBER-2 Study](#). *Clin Cancer Res*. 2024;30(23):5304-5313. doi:10.1158/1078-0432.CCR-24-2113.

Breast Surgery Faculty



Kevin Bethke, MD



Nora Hansen, MD



Olga Kantor, MD



Seema A. Khan, MD

Research Faculty



Susan Clare, MD



Atieh
Hajirahimkhan,
PhD



Oukseub Lee, PhD

Health System Clinicians



Angela Miciura, MD



Denise Monahan,
MD



Miraj Shah-Khan,
MD



Faaiza T. Vaince,
MD

Cardiac Surgery

The Division of Cardiac Surgery is widely respected throughout the nation as an innovator and leader. The division's success is built on three main areas: education, research and clinical care through our affiliated hospitals.

Innovation and highlights

Cardiac Surgery is a key pillar of Bluhm Cardiovascular Institute, which celebrated its 20th anniversary in February 2025. Over the past two decades, as the anchor of Bluhm Cardiovascular Institute:

- › Northwestern Memorial Hospital has gone from an unranked program in 2004 to among the top 20 hospitals in the world for Cardiac Surgery for *Newsweek's* Best Specialized Hospitals 2025.
- › Cardiac Surgery volume has grown 900% since 2004, with 2,750 cardiac surgeries performed per year today, compared with 250 cases a year 20 years ago. This is a ten-fold increase in annual cardiac surgery volume year over year.
- › Northwestern Memorial Hospital has the No. 7 cardiology, heart and vascular surgery program in the United States according to *U.S. News & World Report*, 2024 – 2025, which also named it the only Illinois hospital on the National Honor Roll for 14 straight years.
- › Northwestern Memorial Hospital has the best heart failure survival rate in the country.

- › Kline Engineering Lab of Northwestern University launched TENSOR lab’s medical imaging deidentification, AI-powered solution PixelGuard.
- › Benjamin S. Bryner, MD, participated in a rare triple transplant for a patient, an inspiring story that resonated across the country and the world. In Chicago, it aired on Fox 32, ABC 7 (abc7chicago.com/videoClip/17721849/), WGN (wgntv.com/news/medical-watch/cancer-survivor-receives-second-chance-at-life-with-triple-transplant/) and CBS across several newscasts. It was also picked up by radio stations across the country. The total broadcast and radio audience was 9.28 million. The total print audience was 876 million. The article from *U.S. News & World Report* (usnews.com/news/health-news/articles/2025-09-02/reborn-again-blind-bride-to-be-thriving-after-triple-organ-transplant) was republished in more than 100 newspapers around the nation and the world.

Key achievements



Clinical

- › Cardiac Surgery case volume saw a 19% increase over the previous fiscal year.
- › In FY25, surgeons at Northwestern Memorial Hospital completed the 600th heart transplant.
- › The following hospitals received Society of Thoracic Surgeons (STS) 3-star quality ranking:
 - Northwestern Memorial Hospital was ranked for combined aortic valve replacement (AVR) and coronary artery bypass graft (CABG) procedures.
 - Northwestern Medicine Central DuPage Hospital was ranked for CABG procedures.
 - Northwestern Medicine McHenry Hospital was ranked for CABG procedure, Multiprocedural and use of internal memory artery (IMA).
- › Cardiac Surgery at Central DuPage Hospital was listed in Becker’s Hospital Review as a No. 12 top hospital with the lowest 30-day mortality rate for CABG and No. 5 top hospital with the lowest 30-day readmission rate for CABG. Cleveland Clinic was the only other facility on both lists.



Research

- › The division has participated in more than 50 publications, including a few important articles listed in the section below.



Education

- › Adrienne S. Kline, MD, PhD, BSc, was an invited speaker at Nvidia’s annual GPU Technology Conference (GTC).
- › Adwaiy Manerikar, MD, completed master of science degree in AI.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

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Cardiac Surgery Faculty



Benjamin S. Bryner, MD



Stephen F. Chiu, MD



James L. Cox, MD



Kevin E. Hodges, MD



Douglas R. Johnston, MD



S. Chris Malaisrie, MD



Patrick M. McCarthy, MD



Melissa G. Medina, MD



Christopher K. Mehta, MD



Duc Thinh Pham, MD

Cardiac Behavioral Medicine Faculty



Kim L. Feingold, PhD



Gail M. Osterman, PhD



Alyssa M. Vela, PhD

Research Faculty



Abigail Baldridge, DrPH, MS



Kathleen L. Grady, PhD



Adrienne S. Kline, MD, PhD, BSc



Bowen Wang, PhD

Cardiac Surgery Faculty

Health System Clinicians



Gyu Gang, MD



**Ricardo Boix
Garibo, MD**



Erhan Guler, MD



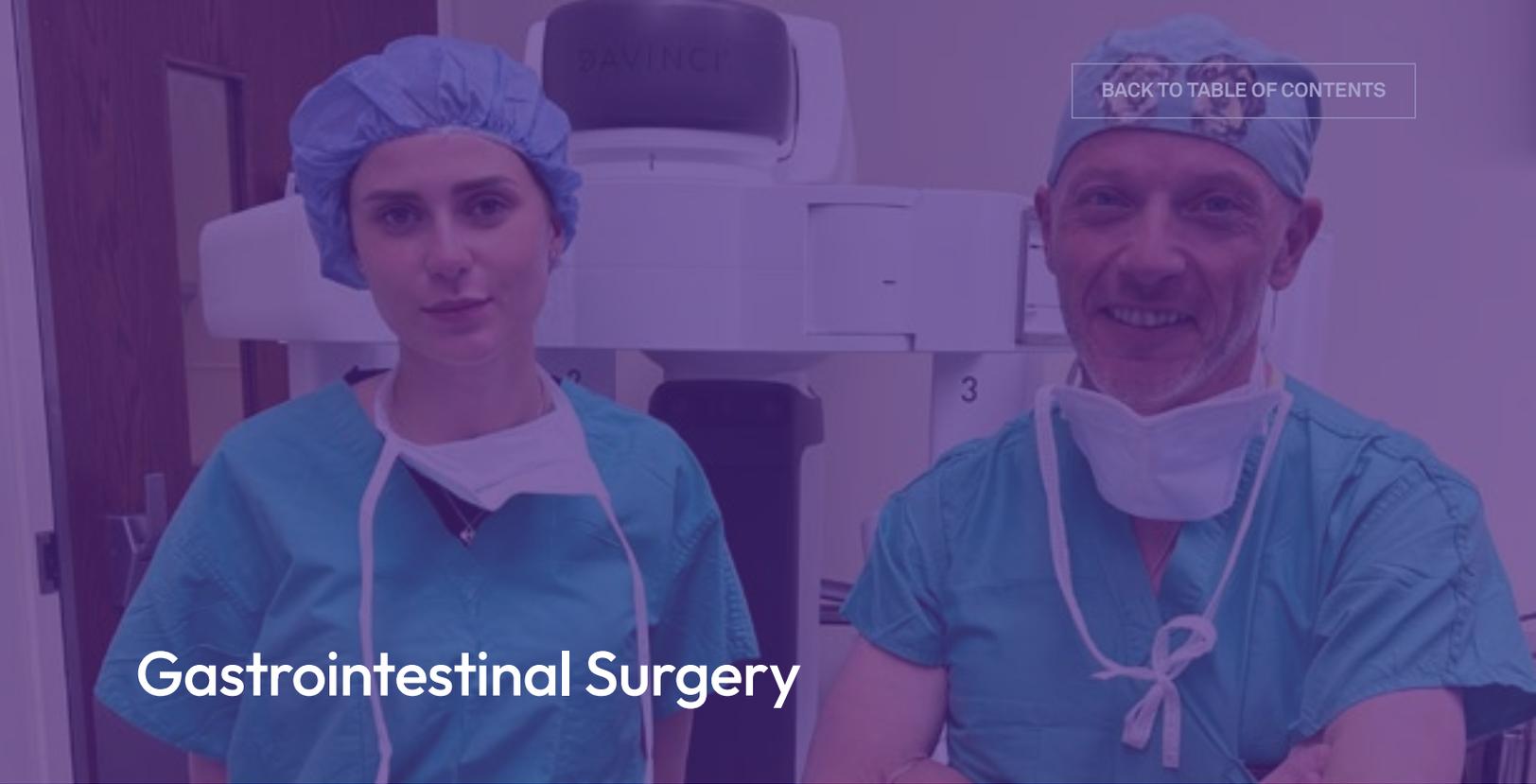
**Mustafa
Kurkluoglu, MD**



**Aqeel A.
Sandhu, MD**



Franjo Siric, MD



Gastrointestinal Surgery

The Division of Gastrointestinal Surgery at Northwestern Medicine combines leading expertise in bariatric, hernia, colorectal and general surgery to deliver advanced, effective and compassionate care. Our commitment to innovation, clinical research and education drives continuous improvement and positions us at the forefront of surgical excellence.

Through continuous quality improvement efforts, research and innovation, we provide leading-edge treatment options for a wide spectrum of GI diseases. Our division brings together expertise in bariatric, hernia, colorectal and general surgery, positioning us as leaders in pioneering surgical techniques, advancing clinical research and educating the next generation of surgeons.

We take pride in offering care in a patient-focused environment, where innovation is balanced with empathy. Our commitment to advancing knowledge in GI surgery is fueled by clinical trials and the dedication of our surgeons who push the field forward. By leveraging an integrated system of care, we ensure patients are consistently matched with the right surgeon, at the right location, for the right procedure—every time.

Innovation and highlights

- › Northwestern Memorial Hospital was ranked No. 10 (tie) nationally in Gastroenterology and GI Surgery by *U.S. News & World Report*, 2024 – 2025.

Key achievements



Clinical

- › Brian Brajcich, MD, and Rachel E. Hendee, PA-C, operated a high-resolution anoscopy program, enhancing early detection and compassionate care for anal dysplasia and related conditions.
- › Eric Hungness, MD; Veronica T. Guerrero, MD; and Matthew R. Pittman, MD, collaborated to streamline the bariatric surgery pathways across the health system, enhancing Epic and MyNM tools to make the process more accessible and reduce time from program entry to surgery.
- › Alexander Nagle, MD, led efforts that earned Northwestern Memorial Hospital re-accreditation by the American College of Surgeons Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program.
- › Vitaliy Poylin, MD, implemented a successful point-of-service universal genetic testing program for all patients newly diagnosed with colorectal cancer, streamlining access to precision diagnostics and enhancing personalized treatment planning across the care continuum.
- › Summer N. Rochester, DO, a board-certified general surgeon, joined the Central DuPage Hospital and Northwestern Medicine Delnor Hospital GI surgery team. Her skill set complements the team and brings the added capability to potentially manage more complex cases locally.



Education

- › Dr. Hungness participated in a philanthropic trip to the Instituto de Medicina Integral Professor Fernando Figueira hospital in Recife, Brazil, to support simulation training and their residency program.
- › Kyle Mueller, MD, performed his 2000th robot-assisted operation and continues to serve as a proctor for health system surgeons.
- › Dr. Poylin was appointed chair of the American Society of Colon and Rectal Surgeons Inflammatory Bowel Disease Committee.
- › Michael Rosen, MD, was appointed the James R. Hines, MD Professor of Surgery.
- › Dr. Rosen launched the Abdominal Core Health Quality Collaborative, positioning our program as a leader in advancing best practices and outcomes.



Research

- › Dr. Brajcich was awarded a one-year \$25,000 grant to support the following work: Implementation of a multimodal pre-operative optimization protocol for patients undergoing colorectal surgery for inflammatory bowel disease.
- › Dr. Poylin initiated the participation of Northwestern Medicine in the U.S. Rectal Cancer Watch and Wait Collaborative, a multi-institutional study evaluating nonoperative management for patients with rectal cancer with complete clinical response to neoadjuvant therapy.
- › Dr. Poylin was awarded a \$232,000 grant from Regulatory and Quality Solutions LLC for the SafeHeal Diverting Ileostomy pivotal study (a study to evaluate the safety and effectiveness of the standard of care diversion, diverting ileostomy, following low anterior resection).
- › Dr. Poylin was awarded a \$24,000 grant from the University of Washington for the trial Comparing Surgery and Medicine on the Impact of Diverticulitis (COSMID).
- › Dr. Rosen was awarded a \$273,000 grant from Medtronic for a multicenter, single-arm, prospective study of Transorb™ self-gripping resorbable mesh in high-risk patients undergoing open repair of ventral hernia.
- › Dr. Rosen was awarded a \$50,000 grant from the Digestive Health Institute for a study examining the potential overutilization of mesh in ventral hernia repair (a randomized clinical trial of mesh versus no mesh for medium-sized incisional hernia repair).
- › Dr. Rosen was awarded a \$50,000 grant from the Digestive Health Institute for a multidisciplinary, multicenter randomized clinical trial of preoperative weight reduction versus upfront surgery for patients with obesity and ventral hernias.

Key faculty honors and awards

Amy Halverson, MD, was appointed a member of the American College of Surgeons (ACS) Academy of Master Surgeon Educators.

Dr. Halverson, Dr. Poylin, Alexander Nagle, MD, and Scott Strong, MD, were named Castle Connolly/*Chicago Magazine* Top Doctors.

Dr. Poylin was recognized by *Newsweek* as one of America's Leading Doctors 2025 for his work in colorectal surgery.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

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Temple LKF, Pusic AL, Liu JB, Melucci AD, Collins CE, Kazaure HS, **Brajcich BC**, Fordham MJ, Lapsley JC, Ko CY. [Patient-reported outcome measures within a national multispecialty surgical quality improvement program](#). *JAMA Surg*. 2024;159(9):1030-1039. doi:10.1001/jamasurg.2024.1757.

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Gastrointestinal Surgery Faculty



Brian Brajcich, MD



Amy L. Halverson, MD



Eric Hungness, MD



Kyle Mueller, MD



Alexander Nagle, MD



Sowmya Narayanan, MD



Megan Melland-Smith, MD



Vitaliy Poylin, MD



Michael Rosen, MD



Ezra Teitelbaum, MD, MEd



Lucille Yao, MD

Health System Clinicians



John Andrews, MD



Daniel Davila, MD



James Frydman, MD



Stephen Ganshirt, MD



Veronica T. Guerrero, MD



Matthew R. Pittman, MD



Summer N. Rochester, DO



Dean Shoener, MD



Jack Wagoner, MD



Jacklyn Wierzbicki, MD



Organ Transplantation

The Division of Organ Transplantation seeks to make discoveries through science and research, improve organ transplant surgical techniques and outcomes, educate future surgeons and scientists and enhance the lives of patients. Founded in 1964, Northwestern Medicine’s transplantation program is the longest-standing program in the Chicago area.

Innovation and highlights

- › Daniela P. Ladner, MD, received the 2025 American Society of Transplant Surgeons (ASTS) Pipeline Award for exemplary training and mentorship.
- › Juan C. Caicedo-Ramirez, MD, received the ASTS Diversity, Equity, and Inclusion Award.

Key achievements



Clinical

- › The scarcity of donor organs and disadvantages within the allocation system can create a difficult pathway to transplant for patients with stage 4 colorectal cancer whose disease has spread to the liver. For the first time at Northwestern Medicine, surgeons have successfully split a deceased donor liver into two parts, transplanting one portion into the intended recipient and the other, smaller segment, into a patient with terminal colorectal cancer who could not find a suitable living donor. The treatment option is now available for select patients with advanced colorectal cancer with liver metastasis in a new clinical

program at Northwestern Medicine called Colorectal Metastasis to Liver Extraction with Auxiliary Transplant and Delayed Resection (CLEAR).

- › Northwestern Medicine has been leading the way in the use of organ perfusion technology, temporarily storing organs outside the body and maintaining their vitality. As a result, we have seen a 30% increase in liver transplants relative to 2024, and we can consider organs from older or sicker donors, expanding access and enhancing quality in liver transplantation.



Research

- › The Division of Organ Transplantation was awarded \$15,307,357 in funds for the fiscal year, a new high in the Comprehensive Transplant Center (CTC).
- › Led by Satish Nadig, MD, PhD, a study of nanotherapeutics is evaluating the safety and efficacy of nano therapy in transplant recipients. In the first part of the study, nanotherapeutics will be used to administer antirejection drugs to donor kidneys before transplant. Then, immunosuppressive medications encapsulated into nanoparticles will be administered after transplant, a technique first patented and published by physicians at Northwestern Medicine. This will enable the study's team to administer these medicines to the kidney specifically, rather than the whole body.
- › The CTC Biorepository is a precisely phenotyped biosample repository that contains thousands of blood, urine and tissue samples from kidney, pancreas and liver transplant recipients that have been collected to allow for any type of biomarker analysis. This biorepository is linked to the DataMart (ORBIT), making tracking of specific samples possible through fairly simple queries. The CTC Biorepository serves as a central repository for an NIH-funded U01 grant (lead site: Northwestern University) for assessing the utility of biomarkers of rejection and kidney injury in tailoring liver transplant immunosuppression. Samples collected from seven sites across the country will be shipped to and stored in the Northwestern University biorepository and sent for analysis to the mechanistic laboratories at the appropriate timing.
- › The concept of regeneration could help address the problem of transplant needs outpacing organ availability. Bioengineered livers may provide a bridge to recovery or transplant by supporting an improving patient, allowing them to avoid unnecessary surgery, or by stabilizing a patient long enough to get a transplant. The CTC is involved in two trials of bioengineered livers:
 - A phase 1 prospective study of the Miromatrix External Liver Assist Product (miroliverELAP®) for liver support in adults with acute liver failure
 - A phase 1 first-in-human safety and proof-of-concept study to evaluate EGEN-5784 porcine liver (drug product) in combination with the metra® extra-corporeal liver cross-circulation device in participants with acute-on-chronic liver failure
- › The CTC is involved in a phase 1 study of total lymphoid irradiation, total body irradiation, anti-thymocyte globulin and purified donor CD34+, T-cell and recipient T regulatory cell transfusion in human leukocyte antigen mismatched living donor kidney transplantation.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

Obradović F, Vitello DJ, Hasjim BJ, Obayemi J, Polineni P, Gmeiner M, Koep E, Jain A, Crippa F, **Duarte-Rojo A, Rohan VS, Kulik L**, Doll JM, Banea T, McNatt GE, Zhao L, VanWagner LB, Manski CF, **Ladner DP**. [Comparing the cost of cirrhosis to other common chronic diseases: a longitudinal study in a large national insurance database](#). *Hepatology*. 2025;82(2):405-421. doi:10.1097/HEP.0000000000001206.

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Organ Transplantation Faculty



Daniel Borja-Cacho, MD



Juan Caicedo-Ramirez, MD



Derrick Christopher, MD



Jesse T. Davidson IV, MD



Zachary Dietch, MD



Daniela P. Ladner, MD



Joseph Leventhal, MD, PhD



Satish Nadig, MD, PhD



Vinayak Rohan, MD



Dineec C. Simpson, MD

Research Faculty



Anna Daud, MBBS, MPH



Dinesh Jaishankar, PhD



James Mathew, PhD



David F. Pinelli, PhD



Anat Roitberg-Tambur, PhD



Aleksandar Senev, MD, PhD



Hong Xu, MD



Xiaomin Zhang, MD



Zheng Zhang, MD



Pediatric Surgery

The Division of Pediatric Surgery endeavors to advance academic, clinical and research activities in keeping with the missions of Ann & Robert H. Lurie Children's Hospital of Chicago and Northwestern University Feinberg School of Medicine.

Innovation and highlights

- › Lurie Children's hit a milestone of 500 liver transplants completed in 2025. This podcast celebrates the achievement and discusses what makes the program remarkable:
www.luriechildrens.org/en/precision-podcast/milestone-in-pediatric-liver-transplant-at-lurie-childrens-with-dr-juan-carlos-caicedo
- › The Siragusa Transplantation Center performed Lurie Children's first combined heart/liver transplant, and the patient was successfully discharged home at the end of July.
- › Arun K. Gosain, MD, completed his term as president of the American Association of Plastic Surgeons, and Noopur Gangopadhyay, MD, was inducted into the association.
- › Dr. Gangopadhyay was honored as the youngest recipient of the prestigious Goldwyn Award, the highest mentorship recognition of the American Council of Educators in Plastic Surgery.
- › Cardiovascular-Thoracic Surgery welcomed Elisabeth Martin, MD, MPH, who is launching the Heart Center's Pulmonary Artery Reconstruction Program

- › Arun Gosain, MD, Division Head of Plastic and Reconstructive Surgery at Lurie Children’s, has received the 2025 ASPS/PSF Level 5 Leader Award — the highest honor from the American Society of Plastic Surgeons / Plastic Surgery Foundation (ASPS/PSF). Representing over 7,000 board-certified plastic surgeons, ASPS/PSF established this award to recognize members whose wisdom, mentorship and leadership have shaped the future of the specialty.
- › In 2025, we are celebrating an extraordinary milestone: the 50th anniversary of the Spina Bifida Clinic at Lurie Children’s.

In those five decades, spina bifida care has transformed profoundly, shifting from survival-focused treatment to empowering children to live fuller, healthier, more independent lives.

Today, we’re proud to be:

- The largest pediatric center participating in the National Spina Bifida Patient Registry (supported by Centers for Disease Control and Prevention)
- Founding members of the Urological Protocol for bladder management
- One of four pediatric benchmarking spina bifida centers nationwide
- Awarded a ten million dollar research grant from Patient-Centered Outcomes Research Institute to advance bowel management

Key achievements



Clinical

- › Lurie Children’s was activated as the first qualified treatment center for Zevaskyn (prademagene zamikeracel) gene-modified cellular sheets. This therapy is used to treat wounds associated with recessive dystrophic epidermolysis bullosa, a rare skin disorder characterized by severe wounds that can lead to systemic complications.
- › Riccardo A. Superina, MD, received a new honor established in recognition of his enduring contributions to pediatric transplantation. The Society of Pediatric Liver Transplantation (SPLIT) presented him with the SPLIT Legacy Award, a distinction created to recognize the pioneering vision, collaborative spirit and lasting impact of the original leaders who founded SPLIT 30 years ago.



Research

- › Faculty members are involved with a multicenter study that has identified critical risk factors in children with a heart defect who are awaiting or have recently undergone heart transplantation. The new study, conducted across 20 U.S. medical centers, offers insight into how specific health complications affect survival in children with Fontan circulatory failure.
- › The Precision podcast featured the Collaborative Advanced Reconstructive Evaluation (CARE) Clinic, which provides multidisciplinary care for children, adolescents and women with congenital anomalies and acquired diseases of the genitourinary tract.

- › Long-term outcomes were published from the largest, longest follow-up study to date of bariatric surgery in teens, led by principal investigator Thomas Inge, MD, PhD. Ten years after undergoing bariatric surgery as teens, more than half of the study participants demonstrated sustained weight loss and also showed resolution of obesity-related conditions, such as type 2 diabetes, high blood pressure and high cholesterol.



Education

- › As head of the Essentials of Leadership program for the American Society of Plastic Surgeons, Dr. Gangopadhyay hosted a weekend of leadership development at Lurie Children's. Guest faculty in her curated course included Sandi K. Lam, MD, from Pediatric Neurosurgery and Anthony C. Chin, MD, from Pediatric Surgery.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

Hadland SE, Agarwal R, Raman SR, Smith MJ, Bryl A, Michel J, Kelley-Quon LI, **Raval MV**, Renny MH, Larson-Steckler B, Wexelblatt S, Wilder RT, Flinn SK. [Opioid prescribing for acute pain management in children and adolescents in outpatient settings: clinical practice guideline](#). *Pediatrics*. Published online September 30, 2024. doi:10.1542/peds.2024-068752.

Gudkov M, Thibaut L, Monger S, Das D, **Winlaw DS**, Dunwoodie SL, Giannoulatou E, Congenital Heart Disease Synergy Study Group. [Benchmarking of variant pathogenicity prediction methods using a population genetics approach](#). *Bioinform Adv*. 2025;5(1):vbaf227. doi:10.1093/bioadv/vbaf227.

Crilly CJ, Carvalho K, **Winlaw DS**, Cornicelli M. [Acquired submitral aneurysm in an adolescent with relapse of B-cell acute lymphoblastic leukemia and history of multiple systemic infections: a case report](#). *Pediatr Cardiol*. Jul 11 2025;doi:10.1007/s00246-025-03947-w.

Alankarage D, Leshchynska I, Portelli S, Sipka A, Blue GM, O'Reilly V, Das D, Rath EM, Enriquez A, Troup M, Fine M, Poplawski N, Verlee M, Humphreys DT, Harvey RP, Chapman G, Kirk EP, **Winlaw DS**, Callewaert B, Chung WK, Ascher D, Giannoulatou E, Dunwoodie SL, Congenital Heart Disease Synergy Study Group. [Haploinsufficient variants in SMAD5 are associated with isolated congenital heart disease](#). *HGG Adv*. Jul 5 2025;6(4):100478. doi:10.1016/j.xhgg.2025.100478.

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Liu X, Lee A, Wang Y, Hoang TP, Yee KS, Mosse L, Karajan N, **Winlaw DS**, Naficy S, Fletcher DF. [Fluid-structure interaction analysis of bioinspired polymeric heart valves with experimental validation](#). *Comput Methods Programs Biomed*. Aug 2025;268:108839. doi:10.1016/j.cmpb.2025.108839.

Jaggers J, **Winlaw D**, Fuller S, Sethi N, Kochilas L, Adachi I, Stone M, Browne L, Khoo N, da Cruz E, Petit C, Lapar D, Stout K, Donofrio M, St Louis J. [2025 American Association for Thoracic Surgery Congenital Cardiac Surgery Working Group- Expert consensus document on the management of patients with pulmonary atresia with intact ventricular septum](#). *J Thorac Cardiovasc Surg*. May 2 2025;doi:10.1016/zj.jtcvs.2025.03.034.

Thompson JM, Tarr IS, Rath EM, Troup M, Ip EKK, Blue GM, **Winlaw DS**, Dunwoodie SL, Giannoulatou E. [Polygenic inheritance for common comorbidities associated with congenital heart disease](#). *JACC Adv*. Mar 21 2025;4(4):101673. doi:10.1016/j.jacadv.2025.101673.

Marshall KH, d'Udekem Y, **Winlaw DS**, Zannino D, Celermajer DS, Eagleson K, Iyengar AJ, Zentner D, Cordina R, Sholler GF, Woolfenden SR, Kasparian NA. [Wellbeing and quality of life among parents of individuals with Fontan physiology](#). *Qual Life Res*. May 2025;34(5):1419-1431. doi:10.1007/s11136-025-03890-6.

Winlaw DS. [Commentary: The next horizon in the surgical management of single ventricle patients](#). *J Thorac Cardiovasc Surg*. Jun 2025;169(6):e62-e63. doi:10.1016/j.jtcvs.2024.10.061.

O'Malley BR, Raja N, Blue GM, **Winlaw DS**, Sholler GF, Congenital Heart Disease Synergy Study Group. [The CHD severity classification system: development of a tool to assist with disease stratification for CHD research](#). *Cardiol Young*. Oct 2024;34(10):2213-2218. doi:10.1017/S1047951124025721.

Lesurf R, Breckpot J, Bouwmeester J, Hanafi N, Jain A, Liang Y, Papaz T, Lougheed J, Mondal T, Alsalehi M, Altamirano-Diaz L, Oechslin E, Audain E, Dombrowsky G, Postma AV, Woudstra OI, Bouma BJ, Hitz M, Bezzina CR, Blue GM, **Winlaw DS**, Mital S. [A validated heart-specific model for splice-disrupting variants in childhood heart disease](#). *Genome Med*. Oct 15 2024;16(1):119. doi:10.1186/s13073-024-01383-8.

Robinson E, Logan C, Chiu S, Husain N, Cuttica MJ, **Mongé MC**, Malaisrie SC. [Pulmonary endarterectomy for chronic thromboembolic pulmonary hypertension secondary to expanded polytetrafluoroethylene valved pulmonary conduit thrombosis](#). *JACC Case Rep*. Mar 5 2025;30(5):103069. doi:10.1016/j.jaccas.2024.103069.

Griffiths ER, Profsky MP, Mokshagundam D, Boucek K, Amdani S, Davies RR, **Mongé MC**, Morales DLS, Rossano JW, Jacobs JP, Kirklin JK, Koehl D, Cantor R, Peng DM, Pedimacs Investigators. [Eighth Annual Society of Thoracic Surgeons Pedimacs Report](#). *Ann Thorac Surg*. Mar 2025;119(3):513-522. doi:10.1016/j.athoracsur.2024.12.020.

Das N, Pedamallu H, Young K, Rosenthal LH, Valika T, Popescu AR, **Davila AB**, **Eltayeb OM**, Samples SM, Carr MR, Patel A, Patel SR. [Postnatal outcomes in prenatally detected vascular rings](#). *Pediatr Cardiol*. Published online February 24, 2025. doi:10.1007/s00246-025-03803-x.

Key faculty honors and awards

Erin Rowell, MD, and Timothy B. Lautz, MD, were inducted into the Society of University Surgeons.

Pediatric Surgery Faculty

Clinical Educators



Amir M. Alhajjat, MD



Juan Caicedo, MD



Anthony C. Chin, MD



Allison Davila, MD



Noopur Gangopadhyay, MD



Seth D. Goldstein, MD



Arun K. Gosain, MD



Julie D. Grabowski, MD



David Grabski, MD



Yue-Yung Hu, MD



Thomas Inge, MD, PhD (tenured)



Rashmi Kabre, MD



Timothy B. Lautz, MD



Benjamin Many, MD



Elisabeth Martin, MD



Jennifer L. McGrath, MD



Michael C. Monge, MD



Mehul V. Raval, MD (tenured)



Erin Rowell, MD



Justin R. Ryder, PhD (scientist)



Aimen F. Shaaban, MD



Riccardo A. Superina, MD



David S. Winlaw, MD



Akira Yamada, MD, PhD

Pediatric Surgery Faculty

Research Faculty



**Joanna K.
Ledwon, PhD**



**Audrey
Rosenblatt, PhD**

Health System Clinicians



**Guillermo J.
Ares, MD**



Alex Dzakovic, MD

Plastic Surgery

The Division of Plastic Surgery offers a spectrum of surgical and nonsurgical procedures designed for both cosmetic enhancements and reconstructive purposes.

Innovation and highlights

Over the past year, the Division of Plastic Surgery has continued to grow its team, advance clinical activity and strengthen its integration across Northwestern Medicine. The division experienced a 9% increase in surgical cases and a 4% increase in wRVUs compared with the previous fiscal year. This growth reflects the team's commitment to meeting rising demand, expanding reconstructive services and supporting the broader scope of the Department of Surgery.

Two new faculty members were added at key regional hospitals. Erin L. Doren, MD, MPH, joined the faculty at Central DuPage Hospital, marking the division's first plastic surgery presence at that site. She has extensive experience in breast reconstruction and microvascular surgery. Aaron M. Kearney, MD, a graduate of the Plastic Surgery residency program, returned to Northwestern Medicine after fellowship training and now practices at Northwestern Medicine Palos Hospital and Palos Health Surgery Center. His clinical focus includes aesthetic and reconstructive surgery of the breast, abdomen and limbs. These faculty members were recruited with a joint effort of Gregory Dumanian, MD, chief of Plastic Surgery, and Michael A. Howard, MD, the newly appointed medical director of Plastic Surgery and Microsurgical Breast Reconstruction for Northwestern Health Network Medical Group.

Collaboration across hospitals continues to deepen for complex “two-surgeon” cases between Lurie Children’s, Northwestern Medicine Catherine Gratz Griffin Lake Forest Hospital, Central DuPage Hospital, Northwestern Medicine McHenry Hospital and Palos Hospital, and the improved accreditation process across facilities has permitted this. This cross-site model of support has enhanced rapport among surgeons and advanced an integrated system of care for patients requiring reconstructive procedures.

The baton was passed from Jason Hyunsuk Ko, MD, to Marco Ellis, MD, as program director for the Division Residency Program. Dr. Ko has notably increased the size of the residency and the variety of rotations during his almost decade-long stint as program director. Lindsay E. Janes, MD, became the clerkship director and chair of the Program Evaluation Committee, while Megan E. Fracol, MD, became associate program director and heads the Clinical Competency Committee. Sumanas (Sue) Jordan, MD, PhD, sponsored residents for national and global fellowship awards: Matthew Ramsey, MD, for the Plastic Surgery Foundation Research Fellowship and Adaure Nwaba, MD, MS, for the Northwestern University Global Health Fellowship.

Together, these achievements reflect the division’s dedication to excellence, innovation and patient-centered care, while positioning Plastic Surgery as a leader in integrated, systemwide surgical services.

Plastic Surgery Faculty



Gregory Dumanian, MD



Marco Ellis, MD



Megan E. Fracol, MD



Robert D. Galiano, MD



Lindsay E. Janes, MD



Sumanas Jordan, MD, PhD



John Kim, MD



Jason Hyunsuk Ko, MD

Research Faculty



Seok Jong Hong, PhD

Health System Clinicians



Erin L. Doren, MD, MPH



Julius Few, MD



Neil Fine, MD



Michael A. Howard, MD



Aaron M. Kearney, MD



Thomas Mustoe, MD



Clark Schierle, MD, PhD



Sammy Sinno, MD



Anthony Terrasse, MD



Chad Teven, MD, MBA



Surgical Oncology

In collaboration with Robert H. Lurie Comprehensive Cancer Center of Northwestern University, the Division of Surgical Oncology and Endocrine Surgery delivers evidence-based, multidisciplinary cancer treatment through a team of fellowship-trained surgeons and dedicated care professionals.

Our division remains committed to advancing programmatic growth and strengthening regional and systemwide integration efforts. These initiatives aim to expand our footprint and ensure access to high-quality surgical oncology services across Illinois. We are also working towards creating a tissue and blood biorepository of all resected malignant and pre-malignant tumors coupled with a systemwide clinical database that tracks our patients.

Jeffrey D. Wayne, MD, continues to lead expansion of surgical oncology services at Catherine Gratz Griffin Lake Forest Hospital, marking a significant milestone by beginning surgical cases and expanding the melanoma program. Over a five-month period, Dr. Wayne performed 72 surgical cases, demonstrating strong momentum and having a meaningful effect on patients as they can now receive their surgical cancer care close to home.

Because of the growth and increasing demand for complex gastrointestinal and hepatopancreatobiliary surgical care, we were pleased to welcome Brett L. Ecker, MD, to the division in September 2025. His addition will further expand access to specialized surgical services and enhance our capacity to meet the needs of patients across the region.

Innovation and highlights

- › Under the leadership of Shishir K. Mathel, MD, the hepatic artery infusion pump program was successfully reinitiated at the Academic Medical Center, offering a critical treatment option for patients.
- › A new nurse navigation initiative was implemented to support disease-specific pathways, enhancing coordination across multidisciplinary teams and improving the patient experience.
- › Surgeon-led clinical trials have been opened at Lurie Cancer Center, broadening our research offerings and providing patients with access to innovative therapies. These trials reflect our commitment to advancing cancer care through clinical research and academic collaboration.

Key faculty honors and awards

Juliet S. Lumati, MD, MPH, received the ASCO Conquer Cancer Global Oncology Young Investigator Award.

David Bentrem, MD, was honored with the Nobility in Science Award at the annual meeting of the National Pancreas Foundation and an appointment to the ACS Board of Governors.

Rebecca L. Williams, MD, PhD, and her team were awarded an 2025 Eleanor Wood Prince Grant.

Rebecca L. Williams, MD, PhD, was honored with the Linnea Hauge, PhD, Promising Educational Scholar Award.

Akhil Chawla, MD, was named the Vice Chair for Regional Integration.

Shishir K. Maithel, MD, was named Chief Surgical Officer of the Robert H. Lurie Comprehensive Cancer Center.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

Kawashima J, Endo Y, Woldesenbet S, Khalil M, Akabane M, Cauchy F, Shen F, **Maithel S**, Popescu I, Kitago M, Weiss MJ, Martel G, Pulitano C, Aldrighetti L, Poultsides G, Ruzzente A, Bauer TW, Gleisner A, Marques H, Koerkamp BG, Endo I, Pawlik TM. [Recurrence-free survival as a surrogate for overall survival among patients with intrahepatic cholangiocarcinoma following upfront surgery: an international multi-institutional analysis](#). *Ann Surg Oncol*. 2025;32(7):4967-4975. doi:10.1245/s10434-025-17156-5.

Akabane M, Kawashima J, Altaf A, Woldesenbet S, Aucejo F, Kitago M, Imaoka Y, Ruzzenente A, Endo I, Marques HP, Lam V, **Maithel SK**, Hugh T, Bhimani N, Pawlik TM. [Preoperative diagnostic failure in gallbladder cancer: influence of tumor location and size on imaging precision](#). *Eur J Surg Oncol*. 2025;51(7):109979. doi:10.1016/j.ejso.2025.109979.

Bennett CF, Janczewski LM, Vitello D, Wells A, Obeidin F, Alexiev BA, Hayes J, Faruqi F, **Bentrem D, Wayne JD, Abad J, Hardy A**, de Viverios PH, Pollack SM, Chawla A. [Trends and outcomes for patients receiving neoadjuvant therapy for stage I to III gastric gastrointestinal stromal tumors](#). *J Gastrointest Surg*. 2025; 29(8):102117. doi:10.1016/j.gassur.2025.102117.

Uwechue FI, Caputo M, Zaza NN, Aduloju T, Abahuje E, Adegbite Z, Iwuji C, Nwogu C, Sadarangani B, Diaz K, **Lumati JS**. [Catastrophic health expenditures for colorectal cancer care: a retrospective analysis of the first private comprehensive cancer center in Lagos, Nigeria](#). *Am J Surg*. 2025;242:116140. doi:10.1016/j.amjsurg.2024.116140.

Zaza NN, Caputo M, Uwechue FI, Okeke S, Aduloju T, Adegbite Z, Iwuji C, Nwogu C, Sadarangani B, Diaz K, Abahuje E, **Lumati JS**. [Risk of financial catastrophe for breast cancer patients in Nigeria: a retrospective analysis](#). *Am J Surg*. 2025 Jan; 239: 116053. doi: 10.1016/j.amjsurg.2024.116053.

Warwar SC, Janczewski LM, Rodriguez GM, **Wayne JD, Bentrem DJ**. [Trends in immunotherapy \(IO\) use and survival among patients with high-incidence stage IV cancers across the United States](#). *J Surg Oncol*. 2025;131(7):1455-1466. doi:10.1002/jso.28084.

Fei-Zhang DJ, **Bentrem DJ, Wayne JD**, Hou L, Fei P, Pawlik TM. [Associations of social vulnerability and race-ethnicity with gastrointestinal cancers in the United States](#). *Cancer Med*. 2025;14(5): e70591. doi:10.1002/cam4.70591.

Surgical Oncology Faculty



David Bentrem, MD



Brett L. Ecker, MD



Dina Elaraj, MD



Juliet S. Lumati, MD, MPH



Shishir K. Maithel, MD



Cord Sturgeon, MD



Jeffrey D. Wayne, MD



Rebecca L. Williams, MD, PhD

Research Faculty



Willemijn Schäfer, PhD



Yao Tian, PhD

Health System Clinicians



John Abad, MD



Chad A. Barnes, MD



Akhil Chawla, MD



Ashley N. Hardy, MD



James R. Wade, MD

Thoracic Surgery

The Division of Thoracic Surgery is among the top programs in the country for clinical care, research and education. We offer advanced surgical treatments across the entire spectrum of thoracic diseases based on leading-edge medical research. We constantly strive for excellence within all aspects of academic thoracic surgery and work to develop innovative solutions for all of our patients, regardless of the complexity of their conditions.

Innovation and highlights

- › The Lung Health Center under the Canning Thoracic Institute was launched June 1, 2025. A goal of the center is to provide lung cancer screening to patients who are outside of traditional screening criteria, as part of an IRB-approved research study, in an effort to demonstrate that lung cancer screening recommendations are behind the curve.
- › The DREAM program (Double Lung Transplant Registry Aimed for Lung-Limited Malignancies) continues to grow and provides options for patients with stage 4 lung cancer to receive a lung transplant.
- › Ankit Bharat, MD, completed Northwestern Medicine's first robotic lung transplant, the second of such cases in the world.
- › Calvin C. H. Lung, MD, earned the Excellence in Teaching award.
- › The Fall 2025 STS Data Harvest indicated that outcomes for esophagectomy and lung cancer surgery from Canning Thoracic Institute surgeons were among the best in the world.
- › Dean Schraufnagel, MD, joined the division from the Cleveland Clinic.
- › Favin Babu, MD, joined the division after completing a fellowship at the University of Chicago, providing a full-time Thoracic Surgery presence at McHenry Hospital.

Thoracic Surgery Faculty



Ankit Bharat, MD



Samuel S. Kim, MD



Chitaru Kurihara, MD



Kalvin C. H. Lung, MD



Dean Schraufnagel, MD

Research Faculty



Emilia Lecuona, PhD



Xianpeng Liu, PhD



Masahiko Shigemura, PhD



Qiang Wu, PhD



Yuanqing Yan, PhD



Wenbin Yang, PhD

Health System Clinicians



Andrew T. Arndt, MD



Favin Babu, MD



Justin Karush, MD



Michael S. Vercillo, MD



James R. Wade, MD

Vascular Surgery

The mission of the Division of Vascular Surgery is to reduce the mortality and disability from vascular disease through patient care, research and education. Our strategy is to bring together highly qualified individuals who have basic and clinical research interest and expertise in vascular disease to create novel treatments and prevention programs for arterial and venous vascular disease.

Innovation and highlights

- › Northwestern Memorial Hospital has the No. 7 cardiology, heart and vascular surgery program in the United States according to *U.S. News & World Report*, 2024 – 2025, which also named it the highest-ranked program in Illinois for 17 straight years.
- › Mark K. Eskandari, MD, performed the first Barostim™ implant at the Jesse Brown Department of Veterans Affairs Medical Center, a new technique for patients with advanced heart failure.
- › Ashley K. Vavra, MD, MS, and Jason Hyunsuk Ko, MD (Plastic Surgery), have developed a complex thoracic outlet and neurogenic upper extremity program.
- › The continued growth of the Vascular Oncology program has included collaboration between Vascular Surgery and Urologic Oncology, Surgical Oncology and Orthopedic Oncology.
- › Neel A. Mansukhani, MD, MS, is evaluating patients for complex endovascular aortic care using a new radiation-free platform in the hybrid operating room (LumiGuide).

- › We welcomed as new faculty Nandan Nath, MD (South Suburbs Vascular Surgery), and Nicholas Karagiorgos, MD (Medical Director, Vascular Surgery Northwest Suburbs).
- › A new hybrid operating room opened at Palos Hospital to support the growing vascular surgery practice in the south suburbs.

Key achievements



Clinical

- › The division continued to enhance the following innovative clinical programs:
 - Commercially available branched aortic stent graft devices (W. L. Gore & Associates) for treatment of aortic arch diseases and thoracoabdominal aneurysms/dissections: Dr. Mansukhani; Tadaki Tomita, MD; Heron E. Rodriguez, MD; and Dr. Vavra.
 - Lower limb salvage with commercially available LimFlow deep venous arterialization techniques: Dr. Eskandari, Dr. Tomita and Anand Brahmandam, MD.
- › We performed our 450th complex endovascular repair of aortic aneurysm.
- › The Code Aorta rapid patient transfer program, in collaboration with the departments of Cardiac Surgery and Cardiology, has continued to find new patients with acute aortic syndromes, including type B aortic dissection and ruptured aortic aneurysm.
- › Clinical productivity continued to increase in each suburban region this fiscal year: north (9%), central (10%), south (14%) and west (25%).



Education

- › As the division and course director, Dr. Eskandari hosted the 48th Annual Northwestern Vascular Symposium at the Intercontinental Hotel.
- › The Northwestern University Vascular Surgery Training Program celebrated its 50th anniversary in December 2024 with nearly 50 alumni from all over the world.
- › Northwestern Medicine hosted the American Irish Medical Summit in March 2025, led by Dr. Rodriguez and Peter Naughton, MD (Northwestern University fellow alumnus 2010).
- › Dr. Rodriguez hosted the Latin America Aortic Meeting, sponsored by W. L. Gore & Associates, in October 2024.
- › The Vascular Surgery Interest Group (VSIG) hosted an introduction to vascular surgery, scrubbing and knot tying in September in the Simulation Center, with about 70 first-year medical students in attendance.

Key division publications

Bold names denote Northwestern Medicine Department of Surgery faculty, trainees and staff at the time of publication.

Chao CL, Reddy NK, Visa M, Kundu SD, **Eskandari MK**. [Late survival and long-term follow-up after radical resection of advanced renal cell carcinoma with associated venous tumor thrombus](#). *J Surg Oncol*. 2025;131(5):917-924. doi:10.1002/jso.28020.

Chao CL, Dang C, Del Carmen AR, Reddy NK, Brown TK, **Eskandari MK**, **Jiang B**. [Temporal effects of sympathetic denervation on aortic remodeling and rupture in experimental abdominal aortic aneurysm](#). *Am J Physiol Heart Circ Physiol*. 2025;329(3):H754-H764. doi:10.1152/ajpheart.00224.2025.

Reilly MA, Alagna ME, Iroz C, Ho E, Lundberg A, Hoel AW, **Vavra AK**, Johnson JK, **Ho KJ**. [Patient factors associated with activation level in peripheral artery disease](#). *Vasc Med*. 2025;30(3):283-292. doi:10.1177/1358863X251318652.

Cohen IC, Watson S, Sweeney P, Reilly M, **Ho KJ**. [Preoperative patient education in vascular surgery](#). *Health Educ Res*. 2025;40(5):cyaf031. doi:10.1093/her/cyaf031.

Chao CL, Lopes L, Reddy NK, El-Gabri D, Broucek LA, Sobolewski RB, Willens N, Prochno KW, Pillado EB, Schneider JR, Wilkinson JB, Hoel AW, Tomita TM, **Vavra AK**. [Implementation of enhanced recovery pathway for lower extremity arterial bypass decreases length of stay](#). *J Vasc Surg*. 2025;82(3):1014-1023.e11. doi:10.1016/j.jvs.2025.05.023.

Martinez OP, Storo K, Provenzano Z, Murphy E, Tomita TM, Cox S. [A systematic review and meta-analysis on the influence of sociodemographic factors on amputation in patients with peripheral arterial disease](#). *J Vasc Surg*. 2024;79(1):169-178.e11. doi:10.1016/j.jvs.2023.08.130.

Key faculty honors and awards

Dr. Mansukhani was named the director of the Division of Vascular Surgery Complex Aortic Program and core faculty for the Center for Bedside Medicine.

Dr. Vavra was named director of the Division of Vascular Surgery Outcomes and Quality Improvement.

Lauren Broucek, APRN, FNP-BC, was selected as the Illinois Nurses Foundation 2024 Nurse of the Year.

Rebekkah Sobolewski, APRN, was given the American Association of Nurse Practitioners 2025 State Award for Outstanding Contributions

Heather Henderson, APRN, received the 2025 Four Star Award for Clinical Excellence.

Resident Maggie Reilly, MD, was the recipient of the McGaw's Commitment to Service Award.

Residents CJ Na, MD, and Sharon Shim, MD, were recipients of the 2024-2025 Resident Teacher Awards in Vascular Surgery.

We welcomed our new vascular fellows and residents: Nidhi Reddy, MD (PGY1), Rylie O'Meara, MD (PGY1), Shaunak Roy, MD (PGY2), and Jessie Ho, MD (first-year fellow and Northwestern University general surgery alum).

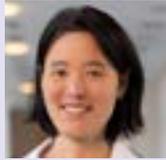
Vascular Surgery Faculty



Anand Brahmandam, MD



Mark K. Eskandari, MD



Karen J. Ho, MD



Neel A. Mansukhani, MD, MS



Heron E. Rodriguez, MD



Tadaki Tomita, MD



Ashley K. Vavra, MD

Research Faculty



Bin Jiang, PhD



Bowen Wang, PhD

Health System Clinicians



George E. Havelka, MD



Nikolaos Karagiorgos, MD



Sherazuddin Qureshi, MD



Gabriel A. Wallace, MD



Julia Wilkinson, MD



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