SAINT LUKE'S MID AMERICA HEART INSTITUTE

CARDIOVASCULAR RESEARCH AND EDUCATION

2024

BEST HOSPITALS
U.S.News & WORLD REPORT
HEART & VASCULAR
2023-2024

Saint Luke's
MID AMERICA HEART INSTITUTE

KANSAS CITY, MISSOURI

Saint Luke's: The Intersection of Innovation and Hope

In 1981, Saint Luke's Mid America Heart Institute opened its doors as the world's first free-standing, dedicated heart hospital, focused specifically on caring for patients with cardiovascular disease.

In 2023, we completed our 1,000th heart transplant, making us one of only 23 advanced programs to have reached this milestone.

Today, our nearly 200 board-certified specialists and cardiovascular experts provide world-class care to more than 85,000 patients annually.

BEST HOSPITALS U.S.News & WORLD REPORT HEART & VASCULAR 2023-2024

HIGH PERFORMING HOSPITALS U.S.News & WORLD REPORT 2023-2024 HEART FAILURE

American Heart Association. 2023 GET WITH THE GUIDELINES GOLD PLUS TARGET: HF HONOR ROLL TARGET: TYPE 2 DIABETES HONOR ROLL HEART FAILURE

American Heart Association. 2023 Mission: Lifeline SILVER STEMI RECEIVING

American Heart Association. 2023 Mission: Lifeline GOLD NSTEMI

- Comprehensive Cardiac Center Certification
- Advanced Heart Failure Certification
- Cardiac Valve Repair and Replacement Certification
- Advanced Ventricular Assist Device Certification
- Acute Myocardial Infarction Certification
- MAGNET RECOGNIZED — One of 50 hospitals in the world to earn five consecutive Magnet Designations

MIKHAIL N. KOSIBOROD, MD
2023 Clarivate™ Highly Cited Researcher

JOHN A. SPERTUS, MD, MPH
2023 Clarivate™ Highly Cited Researcher

Dear Colleague,

Saint Luke's Mid America Heart Institute has been a pioneer and a driver of innovation in cardiovascular medicine since its founding. Today, we continue to offer the most comprehensive heart and vascular care in the region, from disease prevention to heart transplantation.

Moreover, Saint Luke's research is internationally recognized for its contributions to enhancing medical knowledge and improving the value and patient-centeredness of care. In this book, we highlight our cardiovascular research team's efforts to advance the management of cardiovascular disease, so that our patients can live longer, feel better, and enjoy a better quality of life.

Notable highlights include:

- **Cardiometabolic research:** Groundbreaking trial was named as a scientific breakthrough of the year by *Science Magazine,* and one of the most notable publications by the *New England Journal of Medicine* in 2023. The study revealed the popular weight-loss drug, semaglutide, is highly effective at treating the most common type of heart failure in patients with obesity.
- **Outcomes research:** ISCHEMIA (International Study of Comparative Health Effectiveness with Medical and Invasive Approaches) trial, led in part by Saint Luke's investigators, showed that patients with significant, but stable, coronary artery disease are better off with lifestyle changes and medications versus stents or bypass surgery.
- **Structural and valvular heart disease:** Involved in 20 years of clinical trials focused on procedures and devices as alternatives to surgery. Our structural interventionalists and surgeons have published more than 150 manuscripts in peer-reviewed journals and have contributed to most of the landmark trials in this field.
- **Cardiac imaging:** Program has earned national and international recognition for our role in early recognition of the potential of cardiac positron emission tomography (PET) and then leading its technical and clinical evolution.
- **Heart failure:** Completed our 1,000th heart transplant, making us one of 23 institutions nationally to have reached this milestone.
- **Cardiothoracic surgery:** Awarded a National Institutes of Health seven-year, $5 million grant to conduct clinical trials within the Cardiothoracic Surgery Network.
- **Vascular disease:** Awarded funding by the Missouri Chapter of the American College of Cardiology to understand barriers to high-quality care for patients with vascular disease.

These are just a few of the impressive reasons why ***U.S. News & World Report*** **ranked Saint Luke's among the top 50 hospitals for cardiology and heart surgery.**

Sincerely,

Mikhail N. Kosiborod, MD
Vice President, Research, Saint Luke's Health System; Co-Director, Saint Luke's Michael & Marlys Haverty Cardiometabolic Center of Excellence; Executive Director, Cardiometabolic Center Alliance; Ben McCallister, MD, Endowed Chair in Cardiovascular Research; Professor of Medicine, University of Missouri-Kansas City

John A. Spertus, MD, MPH
Clinical Director, Outcomes Research, Saint Luke's Mid America Heart Institute; Daniel J. Lauer, MD/Missouri Endowed Chair in Metabolism and Vascular Research; Professor of Medicine, University of Missouri-Kansas City

SIGNIFICANT ACCOMPLISHMENTS IN SAINT LUKE'S CARDIOVASCULAR RESEARCH

Since opening its doors in 1981, Saint Luke's Mid America Heart Institute has been a world leader in advanced cardiovascular care and innovative clinical research. We care for the full range of cardiovascular conditions, from prevention to heart transplant.

Geoffrey Hartzler, MD

1980s

- Geoffrey Hartzler, MD, performed the world's first primary percutaneous coronary intervention (PCI) for a patient with a STEMI
- Became a pioneer in interventional cardiology, training thousands to perform PCI
- Created region's first cardiac transplant program, with more than 1,000 completed to date

Timothy Bateman, MD

1990s

- Ben McCallister, MD, developed Saint Luke's Clinical Scholars Program, a model for supporting clinical research
- John Spertus, MD, pioneered development and use of patient-reported outcomes, including the Seattle Angina Questionnaire and Kansas City Cardiomyopathy Questionnaire
- Timothy Bateman, MD, defined expanded methods and prognostication for nuclear imaging
- Began collaboration with the American College of Cardiology and American Heart Association to develop new measures for assessing quality, including guidelines, performance measures, and appropriate use criteria

TAVR procedure

2000s

- Ken Huber, MD, led landmark trials in left atrial appendage closure, resulting in FDA approval of the WATCHMAN™ device, with more than 1,000 implanted
- Became data analytic center for ACC's National Cardiovascular Data Registry
- Among the first in the nation to perform transcatheter aortic valve replacement (TAVR) in the landmark PARTNER trials and led analyses of the quality of life and economic outcomes of TAVR; more than 1,500 TAVR procedures performed
- Implemented precision medicine in routine PCI to reduce bleeding complications and kidney injury
- Guided the quality-of-life analyses in the COURAGE trial

John Spertus, MD

2010s

- John Spertus, MD, helped design and execute the ISCHEMIA trial, the largest randomized international trial to compare initial invasive vs. conservative management on clinical events and quality of life for patients with chronic, stable coronary artery disease
- Led innovative trials in cardiometabolic disease, including the first trial of SGLT2 inhibitors in heart failure, ultimately supporting their foundational role in the current guidelines
- Helped design, participated in, and analyzed the quality of life and economic outcomes of the COAPT trial testing the MitraClip™, a revolutionary approach to treating patients with severe mitral regurgitation and heart failure

The Saint Luke's valve team made history by performing the very first paravalvular leak closure with AVP III plugs in the U.S.

2020s

- Designed and implemented international trial of SGLT2 inhibitors in acute COVID-19 infections, DARE-19, solidifying our role in leading global clinical trials
- Led a novel clinical trial, CHIEF-HF, that was conducted without any in-person visits
- Led the analyses defining the impact of a novel medication for hypertrophic cardiomyopathy, direct myosin inhibitors, on patients' quality of life
- Performed the nation's first transcather paravalvular leak closure using the AVP III device
- Performed the region's first percutaneous transcatheter tricuspid valve replacement
- Led STEP-HFpEF, the first trial to target obesity as a treatment for heart failure, which was named as a scientific breakthrough of the year by *Science Magazine,* and one of the top articles by the *New England Journal of Medicine* in 2023

Principal Investigator, Mikhail Kosiborod, MD, presented STEP-HFpEF trial results at the European Society of Cardiology (ESC) 2023 Congress, the largest cardiovascular conference in the world.

RESEARCH GOVERNANCE

MIKHAIL N. KOSIBOROD, MD
Vice President, Research, Saint Luke's Health System; Co-Director, Saint Luke's Michael & Marlys Haverty Cardiometabolic Center of Excellence; Executive Director, Cardiometabolic Center Alliance; Ben McCallister, MD, Endowed Chair in Cardiovascular Research; Professor of Medicine, UMKC

DONNA M. BUCHANAN, PhD
Director, Research, Saint Luke's Health System; Associate Professor of Medicine, UMKC

RYAN R. MCDOWELL
Director, Human Research Protection Program

Office of Research Services

Saint Luke's Research strives to continuously improve the quality and value of health care as a national leader in clinical, translational, and outcomes research. Our mission is to advance the prevention and treatment of disease, helping patients live healthier and longer lives.

Saint Luke's Office of Research Services provides a centralized, comprehensive, and service-driven infrastructure. It is the foundation for research throughout Saint Luke's Health System. The Office of Research Services supports Saint Luke's affiliated researchers with sponsored clinical research, as well as investigator-initiated projects conducted in both inpatient and outpatient settings. We strive to make research more effective by assisting with all aspects of planning, implementation, and coordination.

The Office of Research Services provides:

- Institutional Review Board submission and regulatory support
- Budget and contract management
- Study finance management
- Coordination of clinical research staff and facilities
- Facilitation of biostatistical services and research database management

Research Services offers the support infrastructure to further strengthen Saint Luke's role as a **national leader in research.**

Human Research Protection Program and Institutional Review Board

The mission of Saint Luke's Human Research Protection Program is to create a collaborative environment that embraces the foundational ethical principles of respect, beneficence, and justice. We meet the highest standards of scientific and professional integrity. The Human Research Protection Program is attuned to the ethical challenges of conducting research in a clinical setting and collaborates with investigators to provide accurate and appropriate Institutional Review Board (IRB) review and oversight.

Saint Luke's has an extensive history of participating in collaborative, multi-center research and is well-versed in IRB reliance and coordination of IRB review across multiple sites. Saint Luke's is a member of SMART IRB, the Frontiers Clinical & Translational Science Institute, and other consortiums aimed at increasing the efficiency and value of human subjects' protection in collaborative research.

IMPACT ON INTERNATIONAL PRACTICE GUIDELINES

Saint Luke's Mid America Heart Institute's cardiovascular research experts are internationally recognized for clinical discoveries that improve the quality of care and patient outcomes across the broad range of cardiovascular conditions.

International, practice-changing ISCHEMIA trial

After 12 years of collecting data, the results of the landmark ISCHEMIA (International Study of Comparative Health Effectiveness with Medical and Invasive Approaches) trial showed patients with significant, but stable, coronary artery disease are better off with lifestyle changes and medications versus stents or bypass surgery.

Heart failure research: Leaders in the field of cardiometabolic disease

Our team was central in studying SGLT2 inhibitors, the first entirely novel class of medications in the past two decades to be approved for the treatment of heart failure across the entire range of left ventricular ejection fraction. The team's research led to major guideline changes with adoption of SGLT2 inhibitors as a new standard of care in heart failure.

- Leading the design and execution of numerous national trials of SGLT2 inhibitors:
  - DEFINE-HF
  - PRESERVED-HF
  - EMBRACE-HF
  - CHIEF-HF
- Participation and leadership in global SGLT2 inhibitors trials:
  - DAPA-HF
  - DELIVER
  - EMPULSE

STEP-HFpEF

Named as a 2023 Breakthrough of the Year by *Science Magazine,* this study revealed that the popular weight-loss drug, semaglutide, proved effective in treating patients with the most common type of heart failure. Garnering global attention, the results are likely to be a global paradigm shift in treating these patients. Learn more at saintlukeskc.org/STEP-HFpEF.

Cardiac positron emission tomography

We have been at the forefront of incorporating cardiac positron emission tomography (PET) into routine clinical practice. Seventeen years ago, we were one of the first in the nation to start a cardiac PET program. The benefits of this advanced technology include ultra-high-quality images and improved diagnostic accuracy.

Developed the international standards for quantifying patient-centered outcomes

Heart Institute researchers developed:

- Kansas City Cardiomyopathy Questionnaire
- Seattle Angina Questionnaire
- Peripheral Artery Questionnaire

Valvular heart disease research

Our valve research team has led or contributed to multiple studies that have affected international practice guidelines:

Leadership involvement:

- The PARTNER series of trials: Approval/recommendation for TAVR with the SAPIEN® valve first for high-risk, then intermediate-risk, and then low-risk patients

Strong contributions in:

- **SURTAVI:** Approval/recommendation for TAVR with the Evolut™ valve for intermediate-risk patients
- **COAPT:** Approval/recommendation for MTEER with Mitraclip™ for functional mitral regurgitation
- **CLASP IID:** Approval/recommendation for MTEER with PASCAL® for degenerative mitral regurgitation

CARDIOVASCULAR OUTCOMES RESEARCH

JOHN A. SPERTUS, MD, MPH
Director, Outcomes Research; Daniel J. Lauer, Missouri Endowed Chair; Professor of Medicine, UMKC

STACY L. FARR, PhD, MPH
Director, Cardiovascular Outcomes Research; Associate Professor of Medicine, UMKC

The internationally recognized Saint Luke's Mid America Heart Institute Cardiovascular Outcomes Research Program has markedly advanced the patient-centeredness, value, and equity of care. Our program's early creation of international standards for measuring the health status of patients with cardiovascular disease, including the Seattle Angina and Kansas City Cardiomyopathy Questionnaires, has provided invaluable insights in research and clinical care by defining how patients benefit from different treatments and what patient or treatment characteristics maximize that benefit.

Past contributions

Saint Luke's Cardiovascular Outcomes Research team has led and reported the quality-of-life evaluations of numerous pivotal clinical trials, including:

- **Strategies for managing chronic coronary disease:** ISCHEMIA and COURAGE
- **Interventions for structural heart disease:** Numerous studies of TAVR for aortic stenosis, mitral (COAPT), and tricuspid regurgitation (TRILUMINATE)
- **Obstructive hypertrophic cardiomyopathy:** EXPLORER-HCM

We've also designed pioneering approaches for conducting direct-to-patient trials without in-person visits (CHIEF-HF and Heartline™) to model new methods for more rapidly and efficiently testing new treatments.

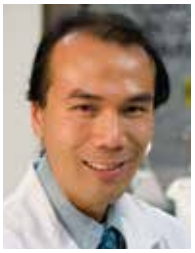
Current focus

We created the Healthcare Institute for Innovations in Quality (HI-IQ) at the University of Missouri-Kansas City, a multi-stakeholder collaboration of regional hospitals, payers, researchers, community-based organizations, and patients to conduct novel strategies for improving the value and equity of health care in Kansas City.

With our support, Saint Luke's was recently accepted into Patient-Centered Outcomes Research Institute's Health System Implementation Initiative, a consortium of 42 leading health care systems seeking to improve the patient-centeredness of evidence-based practice.

2023 Saint Luke's Cardiovascular Outcomes Research Team

ADVANCES IN CARDIAC RESUSCITATION



PAUL S. CHAN, MD, MSc
Cardiologist and Clinical Scholar; Professor of Medicine, UMKC

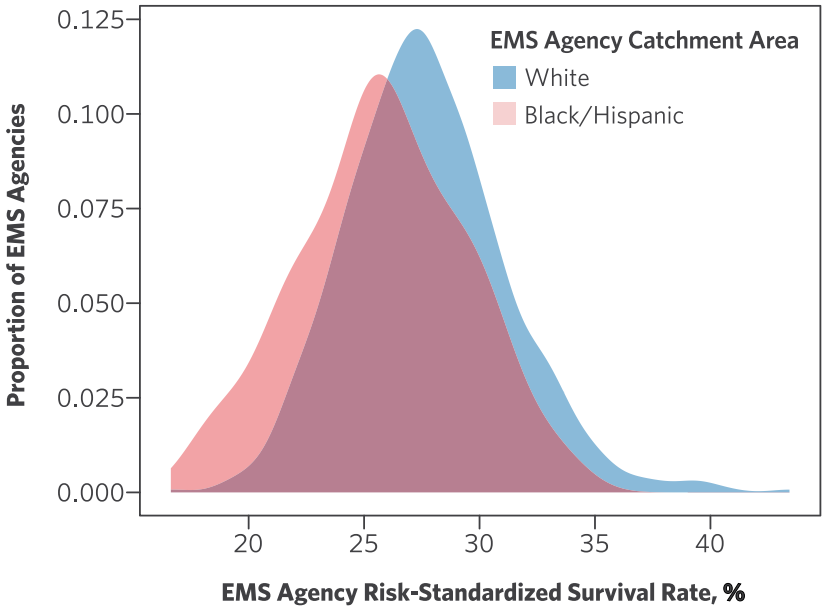
In the U.S., more than 1,000 cardiac arrests prompting CPR occur every day outside hospital settings. In U.S. hospitals, another 900 cardiac arrests occur daily. These types of cardiac arrest are distinctly different conditions. What is required to improve survival differs depending on whether the event occurs outside or inside the hospital.

Saint Luke's Mid America Heart Institute conducts high-impact research on the epidemiology and outcomes of out-of-hospital and in-hospital cardiac arrest, as well as developing strategies to reduce disparities and improve survival.

Paul Chan, MD, MSc, is an international expert on cardiac arrest outcomes, quality of care, and disparities. He has numerous publications on both in-hospital and out-of-hospital cardiac arrest, with five in the *New England Journal of Medicine,* and more than 10 in the *Journal of the American Medical Association* (JAMA).

- **2022 NEJM paper** on Racial and Ethnic Differences in Bystander CPR for Witnessed Cardiac Arrest
- **2023 JAMA Internal Medicine paper** on Cardiac Arrest Survival at EMS Agencies with Black and Hispanic Catchment Areas
- **2014 – 2019 NIH grant** to identify best practices at hospitals with the highest survival rates for in-hospital cardiac arrest
- **2022 – 2026 NIH grant** to identify best practices at EMS agencies with the highest survival rates for out-of-hospital cardiac arrest

EMS Cardiac Arrest Survival Rates by Race



Dr. Chan serves in multiple leadership roles shaping the future of cardiac arrest survival:

- Co-chair of the International Liaison Committee on Resuscitation's initiative to define the Ten Steps for Improving In-Hospital Cardiac Arrest Quality, convening a group of 30 top scientists around the world to determine the key steps for improving in-hospital cardiac arrest survival
- Serves on multiple committees with the American Heart Association (AHA) on cardiac arrest care
- Oversees annual benchmarking reports on in-hospital cardiac arrest survival for the AHA's registry on in-hospital cardiac arrest, Get With The Guidelines-Resuscitation

CARDIOMETABOLIC CENTER

MIKHAIL N. KOSIBOROD, MD
Executive Director, Cardiometabolic Center Alliance; Co-Director, Haverty Cardiometabolic Center of Excellence; Professor of Medicine, UMKC

In 2019, Saint Luke's Michael & Marlys Haverty Cardiometabolic Center of Excellence launched a novel approach to treating cardiometabolic diseases, providing team-based, comprehensive care specifically tailored to each patient. At the Cardiometabolic Center, we saw strong evidence that using a unified approach with streamlined programs produces positive results and makes a tangible difference in outcomes.

Percentage of patients in the U.S. given evidence-based, standard of care therapies to reduce glucose and other cardiovascular risk factors:

- **National Average: 6.9%**
- **Haverty Cardiometabolic Center: >85%**

JAMES H. O'KEEFE, MD
Co-Director, Haverty Cardiometabolic Center of Excellence; Professor of Medicine, UMKC

MELISSA MAGWIRE, RN, MSN, CDCES
Director, Cardiometabolic Center Alliance

Data from the Cardiometabolic Center revealed significant improvements in a multitude of risk factors, including increases in the overall use of guideline-directed medical therapies indicated for the treatment of cardiovascular and kidney disease complications and comprehensive risk reduction.

This unique care model's success led to multiple publications, including those found in *Circulation: Cardiovascular Quality and Outcomes* and the *Journal of the American Heart Association.*

CARDIOMETABOLIC RESEARCH

MIKHAIL N. KOSIBOROD, MD
Executive Director, Cardiometabolic Center Alliance; Co-Director, Haverty Cardiometabolic Center of Excellence; Professor of Medicine, UMKC

ANDREW J. SAUER, MD
Cardiologist, Heart Failure; Associate Professor of Medicine, UMKC

SHERYL L. WINDSOR
Manager, Cardiometabolic Research

The Saint Luke's Cardiometabolic Research team has been central in studying SGLT2 inhibitors—the first entirely novel class of medications in the past two decades to be approved for the treatment of heart failure for the entire range of ejection fractions.

Saint Luke's led the design and execution of numerous clinical trials of SGLT2 inhibitors impacting international guidelines and clinical practice, including:

- DEFINE-HF
- PRESERVED-HF
- EMBRACE-HF
- DAPA-HF
- DELIVER
- EMPULSE
- DARE-19

The Cardiometabolic Research team led Saint Luke's participation in CHIEF-HF. This trial was the world's first decentralized, digitally driven medical study where patients wore a FitBit® to record their daily step counts and activity.

CARDIOMETABOLIC CENTER ALLIANCE

MIKHAIL N. KOSIBOROD, MD
Executive Director, Cardiometabolic Center Alliance; Co-Director, Haverty Cardiometabolic Center of Excellence; Professor of Medicine, UMKC

MELISSA MAGWIRE, RN, MSN, CDCES
Director, Cardiometabolic Center Alliance

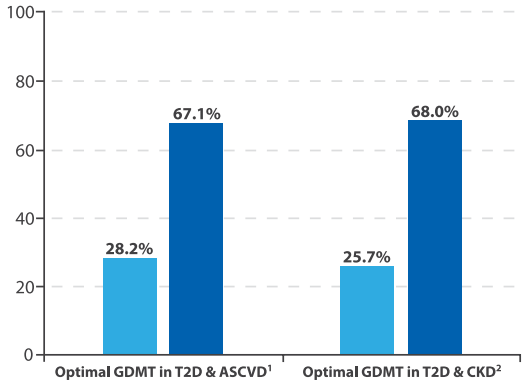
Based on the Haverty Cardiometabolic Center's encouraging results, health care systems and providers from across the country began to inquire how best to develop their own centers. **The Cardiometabolic Center Alliance (CMCA) was formed in May of 2020.**

CMCA is a national organization focused on expanding this clinical model of care. To date, there are 16 members of the CMCA, with growing interest and increasing interaction at many more sites across the U.S. and internationally.

CMCA provides members with the proper training, protocols, and materials needed to establish their own Centers of Excellence. Alliance members participate in the Cardiometabolic National Patient Registry for the purpose of quality assessment, quality improvement, clinical research, and to demonstrate the value of this care delivery model on a global scale.

CMCA members have observed statistically significant improvements in quality of care and clinical outcomes such as weight loss, hemoglobin A1C reduction, blood pressure reduction, and lower cholesterol levels.

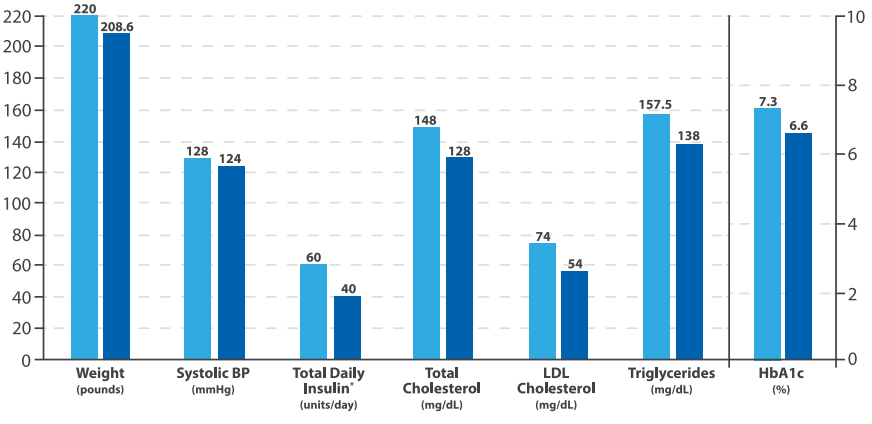
Results from CMCA



[1] Individuals with T2D and ASCVD that are prescribed 1) SGLT2 inhibitor and/or GLP1 receptor agonist; and 2) ACE-1 or ARB or ARNI; and 3) high-intensity statin or other high-intensity lipid lowering therapy (statin plus ezetimibe, statin plus PCSK9 inhibitor, or PCSK9 inhibitor) and 4) anti-platelet or anticoagulant agent; excludes patient in whom above agents are contraindicated or not tolerated.

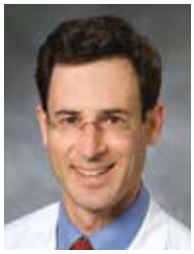
[2] Individuals with T2D and CKD that are prescribed 1) SGLT2 inhibitor and 2) ACE-1 or ARB or ARNI; excludes patients in whom above agents are contraindicated or not tolerated.

*For insulin-requiring individuals



In total 606 individuals with T2D and CVD/CKD from six sites were evaluated (age 64 years, 44% women, 78% white, median follow up six months). After initiation of care at Alliance sites, large improvements in GDMT and reductions in weight, HbA1c, blood pressure, total/LDL cholesterol, triglycerides, and insulin requirements were observed (Figure panels 1 and 2; $p < 0.001$ for all).

STRUCTURAL AND VALVULAR HEART DISEASE



DAVID G. SKOLNICK, MD
Medical Director, Valve Program;
Director, Echo Laboratory;
Professor of Medicine, UMKC

ADNAN K. CHHATRIWALLA, MD
Medical Director, Structural Intervention; Professor of Medicine, UMKC

KEITH B. ALLEN, MD
Surgical Research Director, Structural Intervention; Clinical Associate Professor of Surgery, UMKC

CHETAN P. HUDED, MD, MSc
Medical Director, LAAC Program;
Assistant Professor of Medicine, UMKC

Saint Luke's Structural and Valvular Heart Disease Program centers on procedures that have evolved as alternatives to surgery. Initially, we focused on patients who were not candidates for surgery, but have expanded to a larger range of patients.

Past studies

In the past 20 years, Saint Luke's Mid America Heart Institute has participated in many landmark studies, including:

- **PARTNER (2008):** First large trial of transcatheter aortic valve replacement (TAVR) in the U.S.
- **COAPT (2017):** First trial to show a benefit of mitral valve intervention for patients with heart failure and functional mitral regurgitation
- **PROTECT-AF (2005) and PREVAIL (2010):** Led to FDA approval of left atrial appendage closure procedures as an alternative to blood thinners in atrial fibrillation

Recognized as a leader in the region, our team has performed more than 800 successful procedures since the WATCHMAN™ device was approved by the FDA in 2015.

Current studies

Aortic stenosis

- **EARLY TAVR:** Evaluating the role of TAVR for patients with severe aortic stenosis who are not yet symptomatic
- **PROGRESS:** Evaluating the potential benefits of TAVR in patients with moderate aortic stenosis and symptoms of cardiac dysfunction

Mitral regurgitation and stenosis

Mitral transcatheter edge-to-edge repair (MTEER) with MitraClip™ is a proven and effective therapy for patients with degenerative or functional mitral regurgitation. We are expanding the understanding of MTEER by participating in two trials involving edge-to-edge repair with the PASCAL® device, an alternative to MitraClip.

- **CLASP IID:** Patients with primary or degenerative mitral regurgitation
- **CLASP IIF:** Patients with secondary or functional mitral regurgitation

SUMMIT

ENCIRCLE

CLASP II TR

TRISCEND II

For some patients, including those with mitral stenosis, valve anatomy may not be amendable to MTEER. Our team is actively engaged in two studies focused on transcatheter mitral valve replacement (TMVR).

- **SUMMIT:** Evaluating TMVR with the Tendyne™ valve via transapical access
- **ENCIRCLE:** Evaluating TMVR with the SAPIEN® M3 system via transseptal approach

Tricuspid regurgitation

Our team is involved in two of the first-ever studies that focused on reducing the degree of tricuspid regurgitation without open-heart surgery, while evaluating patients' survival, symptom status, and quality of life.

- **CLASP II TR:** Evaluating a tricuspid leaflet edge-to-edge repair procedure using the PASCAL device
- **TRISCEND II:** Evaluating a tricuspid valve replacement using the EVOQUE valve

Transcatheter left atrial appendage closure (LAAC)

A safe and effective alternative to long-term anticoagulation for the prevention of stroke in patients with atrial fibrillation. Current studies include:

- **CHAMPION-AF:** Evaluating the WATCHMAN FLX vs. direct oral anticoagulants as first-line stroke prevention in AFib
- **CONFORM:** Evaluating the novel CLAAS device vs. the WATCHMAN or Amulet devices for LAA closure

Paravalvular leak (PVL) closure

- **PARADIGM:** Saint Luke's is one of only 25 international sites to participate in this evaluation of the AVP III device, the first dedicated device for PVL closure to be tested in the U.S.

Our team has published more than 150 peer-reviewed valvular heart research papers.

SUZANNE V. ARNOLD, MD
Cardiologist; Professor of Medicine, UMKC

ADNAN K. CHHATRIWALLA, MD
Medical Director, Structural Intervention; Professor of Medicine, UMKC

TRANSCATHETER HEART VALVE RESEARCH

Saint Luke's Mid America Heart Institute remains on the leading edge of transcatheter valvular intervention research. Our team has pioneered methods to define outcomes that go beyond just survival to account for patients' symptoms, function, and quality of life.

Past highlights

- Examined the health status outcomes of patients who underwent TAVR or MTEER as a part of numerous clinical trials and the STS/ACC TVT Registry™.
- Defined the patient factors associated with outcomes after TAVR and MTEER (both survival and health status) to better identify patients who may not achieve the full benefit of the procedure.
- Established the results of various complications of TAVR on outcomes, so we can focus on reducing the complications with the greatest negative effects on patients. This work directly informed the development of the STS/ACC TVT Registry quality metric.

Current focus

Currently, our team is working to understand the impact of tricuspid transcatheter interventions on patients' health status and the factors that may modify the effect of intervention.

KEITH B. ALLEN, MD
Surgical Research Director, Structural Intervention; Clinical Associate Professor of Surgery, UMKC

JOHN R. DAVIS, MD, FACS
Surgical Director, Structural Intervention; Co-Executive Surgical Director; Frank L. and Evangeline A. Thompson Endowed Chair in Cardiovascular Surgery and Transplantation; Clinical Assistant Professor of Surgery, UMKC

CARDIOTHORACIC SURGICAL RESEARCH

Cardiac surgery research continues to lead to new discoveries and innovative treatments, allowing patients to receive the best care possible.

In 2019, the National Institutes of Health awarded Saint Luke's Mid America Heart Institute a 7-year, $5 million grant to conduct clinical trials within the Cardiothoracic Surgery Network (CTSN). This prestigious NIH grant was awarded to only five linked, clinical research centers across the U.S.; Saint Luke's was paired with the University of Southern California.

To date, the grant has supported clinical trials evaluating the best practice for:

- Managing atrial fibrillation following coronary artery bypass grafting surgery
- Surgical versus transcatheter mitral valve repair
- A novel embolic protection device to prevent strokes during open heart operations

HEART FAILURE

BETHANY A. AUSTIN, MD
Co-Medical Director, Heart Failure Program; Professor of Medicine, UMKC

ANTHONY MAGALSKI, MD
Co-Medical Director, Heart Failure Program; Arvin Gottlieb Endowed Chair in Advanced Heart Failure and Cardiac Transplant; Professor of Medicine, UMKC

ANDREW C. KAO, MD
Medical Director, Cardiac Transplantation; Professor of Medicine, UMKC

MICHAEL E. NASSIF, MD
Cardiologist, Heart Failure; Assistant Professor of Medicine, UMKC

BRETT W. SPERRY, MD
Director, Cardiac Amyloidosis Program; Associate Professor of Medicine, UMKC

For more than 30 years, Saint Luke's heart failure research team has been actively involved in clinical studies investigating medications and devices to improve outcomes for patients with heart failure or those undergoing heart transplantation. In 2023, Saint Luke's completed our 1,000th heart transplant, making us one of 23 advanced programs to have reached this milestone.

Since 2021, we have enrolled 225 patients in 18 clinical trials, and we are considered a high-enrolling site for eight of them.

Hypertrophic cardiomyopathy

Hypertrophic cardiomyopathy (HCM) is an inherited disease in which the heart muscle becomes abnormally thick. HCM is the most common inherited cardiomyopathy, affecting 1 in 500 Americans. The treatment of hypertrophic cardiomyopathy has undergone a paradigm shift. The novel drugs aficamten and mavacamten are the first-ever therapy specifically designed to treat HCM.

With a targeted, revolutionary therapy on the horizon, specialized clinics such as Saint Luke's Mid America Heart Institute's HCM clinic are essential for patient-specific, pharmacokinetic-based dosing. Saint Luke's was among the first centers in the world to enroll patients in the phase III study of aficamten at the end of 2021.

Amyloidosis

Saint Luke's Amyloidosis Program, comprised of a multidisciplinary team of physicians, is dedicated to diagnosing and treating patients with all forms of amyloidosis. This comprehensive team includes specialists in cardiology, hematology, nephrology, and neurology.

Saint Luke's Mid America Heart Institute has advanced imaging techniques to make a non-invasive diagnosis of cardiac amyloidosis, such as cardiac MRI, echocardiography with longitudinal strain, and technetium pyrophosphate scintigraphy.

Our physicians have published extensively and participate in national clinical trials. Additionally, physicians from Saint Luke's Amyloidosis Program led an international symposium for amyloidosis beginning in 2020 with almost 800 participants from 26 countries.

Hemodynamic monitoring

Saint Luke's helped pioneer implantable hemodynamic monitoring in patients with heart failure more than 25 years ago. The second implantable heart failure monitor in the U.S. was placed at Saint Luke's Hospital of Kansas City.

TIMOTHY J. FENDLER, MD
Cardiologist, Heart Failure; Assistant Professor of Medicine, UMKC

CARDIAC IMAGING

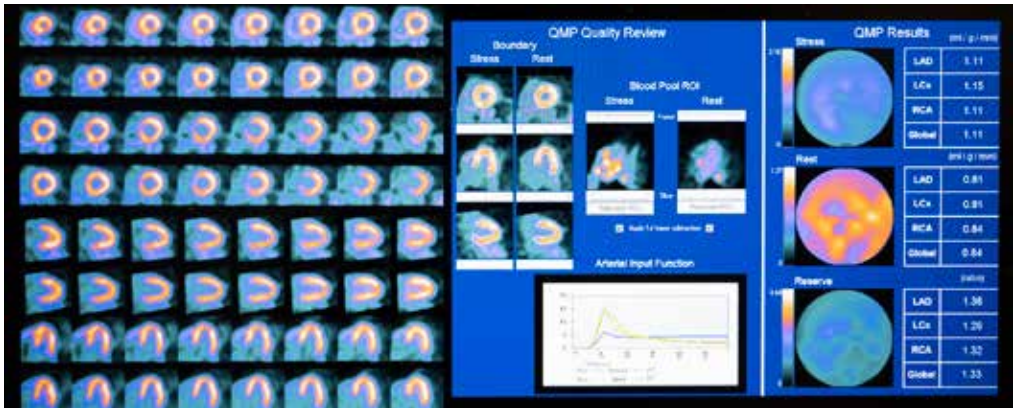
TIMOTHY M. BATEMAN, MD
Co-Medical Director,
Cardiovascular Radiologic
Imaging; Professor of
Medicine, UMKC

Cardiac Positron Emission Tomography

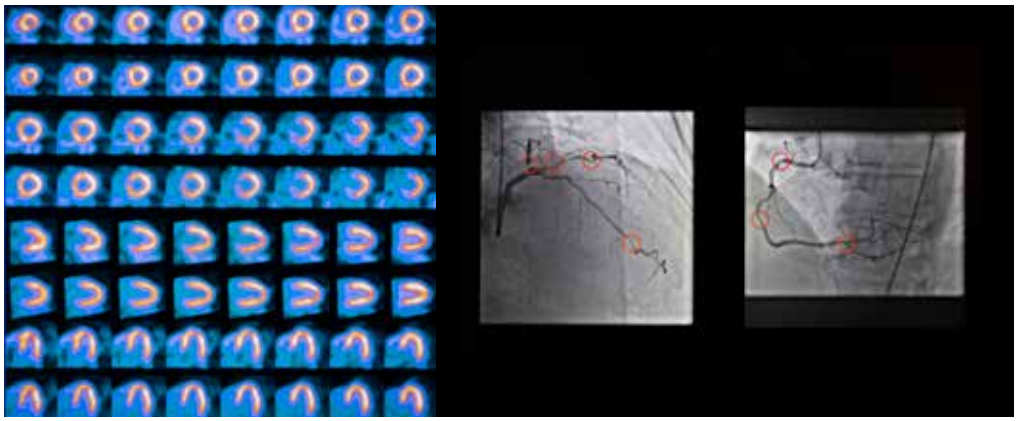
Saint Luke's Cardiac Imaging Program has earned national and international recognition for our role in recognizing the potential of cardiac positron emission tomography (PET) and then leading its technical and clinical evolution. Among our contributions:

- Technical quality control software to ensure accurate results
- Chairing pivotal committees concerning how to perform and interpret this new data
- Providing guidance to industry on new tracers
- Numerous research publications and presentations, including a leading textbook
- Significant contributions to the growth of quantitative imaging, permitting needed insights into coronary blood flow

PET/CT is now the most powerful modality we have for non-invasively diagnosing coronary disease and determining its extent and severity. Saint Luke's offers cardiac PET/CT using the very latest digital PET/CT scanners, providing unparalleled accuracy regardless of a person's shape, size, age, gender, or complexity of condition.



Despite normal images, software developed at Saint Luke's identified markedly reduced blood flow in the distribution of all three coronary arteries.



A coronary angiography showed high-grade blockages in all three major coronary arteries. The patient continues to do well after coronary artery bypass surgery.

The cornerstone for a precise and accurate cardiac diagnosis rests on sophisticated imaging.

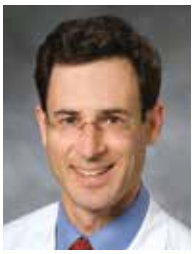
RANDALL C. THOMPSON, MD
Medical Director, Cardiac CT Imaging; Professor of Medicine, UMKC

Computed Tomography and Magnetic Resonance

With state-of-the-art equipment, the cardiac CT and MRI programs at Saint Luke's provide complementary information to diagnose and manage complex cardiac conditions. We have a dedicated team of board-certified CT and MRI cardiologists who review all these respective studies.

CT imaging provides a detailed assessment of cardiac structure and is instrumental in ensuring the appropriate-size device is implanted. CT imaging is also critical for assessing potential prosthetic valve dysfunction, paravalvular defects, subclinical leaflet thrombosis, and LAA thrombus.

Cardiac MRI technology provides more precise volumetric chamber assessment and flow quantification. Our team completed nearly 3,000 CT scans and more than 1,450 MRIs in 2023.



DAVID G. SKOLNICK, MD
Medical Director, Valve Program; Director, Echo Laboratory; Professor of Medicine, UMKC

Echocardiography

The cornerstone for evaluating patients with valvular heart disease rests on transthoracic and transesophageal echocardiography. Since performing the first TAVR in Kansas City 15 years ago, Saint Luke's established a team of structural echocardiographers and sonographers dedicated to the rapidly evolving science of transcatheter valve intervention.

This team is integral to our ongoing endeavors in nearly a dozen research trials. As we continue to participate in landmark clinical trials on all four valves, our echo team gains a deeper understanding of valvular pathology. In turn, our patients receive more accurate diagnoses. As part of our commitment to education and quality, we host a monthly echo physician conference to review updated imaging guidelines and new research.

VASCULAR DISEASE

MATTHEW C. BUNTE, MD, MS
Director, Vascular Medicine; Associate Professor of Medicine, UMKC

KARTHIK VAMANAN, MD
Surgical Director, Vascular Program; Associate Professor of Surgery, UMKC

STEVEN B. LASTER, MD
Interventional Cardiology; Peripheral Vascular Disease Cardiology; Associate Professor of Medicine, UMKC

SAMANTHA M. ALSOP, MD
Vascular Surgery; Clinical Assistant Professor of Surgery, UMKC

Vascular research at Saint Luke's Mid America Heart Institute has a 30-year history exploring advances in vascular care and patient-centered outcomes to address challenges in the treatment of artery and vein disease.

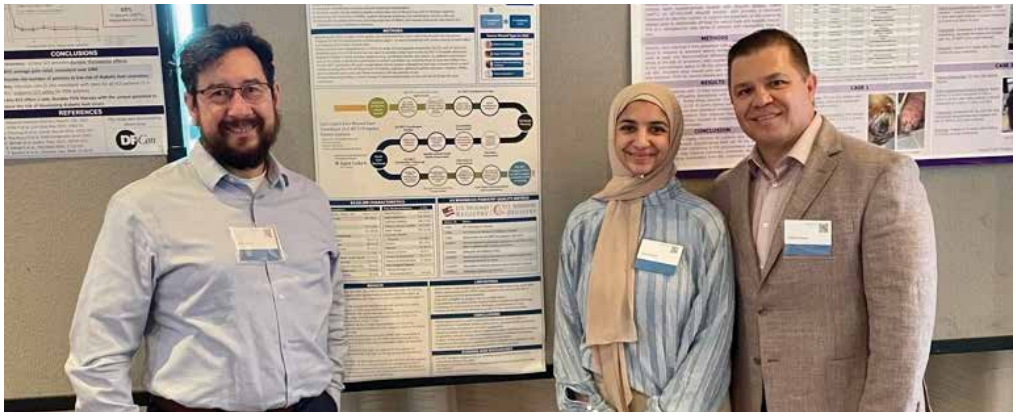
Saint Luke's Hospital Vascular Center includes a comprehensive, multidisciplinary care team that offers clinical services, including access to the latest clinical research and advances unparalleled in our region.

The treatment of vascular disease involves complex challenges that require innovations made available through research. The patients we work with have unique needs that require our specialists to help them understand their condition and provide treatment options to save life and limb.

Our vascular team is adapting to a rapidly evolving health care environment to provide whole-person vascular services that meet the needs of our patients.

Past highlights

- Participated in study of transcatheter arterialization of deep veins and management of no-option chronic limb-threatening ischemia for patients at risk for limb loss due to severe peripheral artery disease (PAD)
- Fostering multidisciplinary collaboration to become a national leader in enrollment for the FLASH registry, a study evaluating the treatment and outcomes among patients with pulmonary embolism
- Awarded funding by the Missouri Chapter of the American College of Cardiology to understand barriers to high-quality care for patients with vascular disease
- Demonstrated the effects of secondary prevention to reduce major adverse cardiovascular events among patients with PAD
- Awarded research funding from sponsor to understand how health-related social needs in Kansas City impact outcomes for patients with PAD



Erick J. Guerra, MD; Layla Mokhtar, MD; and Matthew Bunte, MD, presenting at the Interdisciplinary Global Diabetic Foot Conference & American Limb Preservation Society. They presented on results of Saint Luke's East Wound Care Transitions Program.

MUZAMMIL AZIZ, MD
Vascular Surgery; Clinical Assistant Professor of Surgery, UMKC

ANTHONY N. GRIEFF, MD
Vascular Surgery; Clinical Assistant Professor of Surgery, UMKC

ANATOLY LOSKUTOV, MD
Interventional Radiology; Assistant Professor of Medicine, UMKC

NATHAN ALIYAH SAUCIER, MD
Interventional Radiology; Assistant Professor of Medicine, UMKC

Current focus

Our team is focused on clinical excellence, promoting health equity, supporting community health, and offering advanced vascular therapies to help promote limb salvage. We are committed to understanding the effects of high-quality care and social determinants of health on vascular outcomes.

Peripheral artery disease

- PAD is an increasingly common form of vascular disease that threatens life and limb
- Our research team has presented leading, patient-centered research to improve outcomes for those with PAD, by addressing quality of care and meeting patients where they are

Limb salvage

- For patients with the most advanced forms of PAD, understanding needs and how PAD and its consequences also impacts quality of life
- Offering hope through researching new treatments is among the most important objectives of our vascular care team

Pulmonary embolism

- Lead our region in care of pulmonary embolism (PE), a life-threatening vascular disorder
- Significantly improved patient outcomes by studying treatment patterns and helping to lead national efforts that support leading-edge treatment of PE

Saint Luke's East Hospital Wound Care Transitions Program

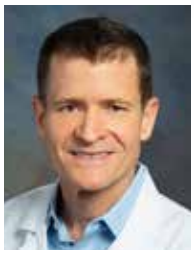
In July 2022, we created a multidisciplinary program to improve patient experience, patient-centered outcomes, and reduce complications of complex wounds.

- Participate in the Society for Vascular Surgery Vascular Quality Initiative reporting program
- Saint Luke's multispecialty vascular team shares data and attends regional quality meetings to improve vascular care locally

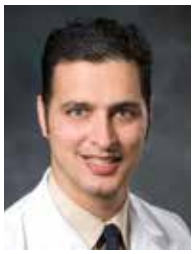
Program results:

- Whole-person care for adults hospitalized with severe wounds offers an opportunity to consolidate clinical quality metrics, promote health-related social needs assessment and resourcing, and improve care team engagement
- Ongoing analysis will report relevant patient outcomes, including rates of major amputations, wound healing, and health care resource utilization to promote support of this complex and resource-intensive population
- Expansion of the program is a priority to ensure eligibility for outpatients with severe wounds and build trust among patients and the care team

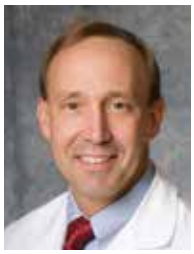
CARDIAC ELECTROPHYSIOLOGY



ALAN P. WIMMER, MD
Medical Director,
Electrophysiology;
Professor of Medicine, UMKC



SANJAYA K. GUPTA, MD
Director of Electrophysiology
Fellowship; Associate Professor
of Medicine, UMKC



BRIAN M RAMZA, MD, PhD
Electrophysiologist; Frank L.
and Evangeline A. Thompson
Endowed Chair in Electrophysiology
Research; Associate Professor of
Medicine, UMKC

Saint Luke's heart rhythm research team includes four clinical electrophysiologists who devote substantial time to clinical research. We participate in industry-sponsored trials of cardiac implantable electronic devices (CIED), catheter ablation technology, and left atrial appendage occlusion devices.

Notable CIED trials include:

- Use of implantable loop recorder detection for cryptogenic stroke
- The first MRI conditional pacemakers and ICDs
- Antibiotic envelope use for reduction of infection
- The extravascular (sub-sternal) ICD
- The ECG belt for assessment of cardiac resynchronization
- Cardiac resynchronization with LV-only pacing
- Cardiac contractility modulation
- Leadless LV endocardial pacing for cardiac resynchronization

Catheter ablation studies include:

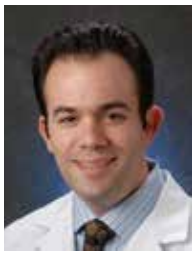
- Radiofrequency ablation research for atrial fibrillation and atrial flutter
- Cryoballoon pulmonary vein isolation trials
- Multiple pulsed field ablation trials

Percutaneous left atrial appendage occlusion trials include:

- All of the landmark trials leading to FDA approval of the WATCHMAN™ and Amulet™ device
- Ongoing studies of the use of WATCHMAN in new clinical scenarios and in comparison to new anticoagulants
- Ongoing trials of new occlusion devices

In 2021, Saint Luke's cardiologist and electrophysiologist, Sanjaya Gupta, MD, and his team performed the first pulsed field ablation procedure in Kansas and Missouri as part of the PULSED-AF Trial.

DANIEL A. STEINHAUS, MD
Director of Electrophysiology Quality; Assistant Professor of Medicine, UMKC



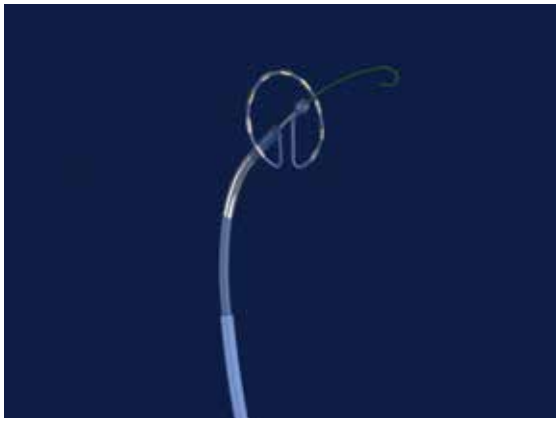
MICHAEL J. GIOCONDO, MD
Electrophysiologist; Assistant Professor of Medicine, UMKC

JESSICA A. KLINE, DO
Associate Director of Electrophysiology Fellowship; Assistant Professor of Medicine, UMKC

ALEJANDRO PEREZ-VERDIA, MD
Electrophysiologist; Assistant Professor of Medicine, UMKC

Areas of investigator-initiated clinical research includes:

- Comparative effect of preprocedural direct oral anticoagulants versus warfarin on intraprocedural heparin anticoagulation
- Use of pressure waveform monitoring for cryoballoon ablation
- The effect of catheter ablation for atrial fibrillation on subsequent hospitalization rates in patients with heart failure
- A shared decision-making intervention for patients offered primary prevention ICD implant
- Ventricular tachycardia ablation guided by non-invasive mapping using the ECG vest
- Safety of MRI in patients with non-MRI CIEDs
- The effect of smartphone electrocardiogram use on anticoagulation compliance
- The role of a combined heart failure/electrophysiology cardiac device resynchronization clinic
- Multi-center trial assessing quality of life in elderly patients with ICDs
- Impact of telehealth on the outpatient care of patients with atrial fibrillation

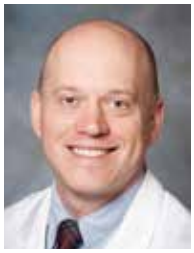


First in bi-state area to participate in 2021 clinical trial for the novel PulseSelect™ catheter to treat atrial fibrillation. The device was recently approved by the FDA.

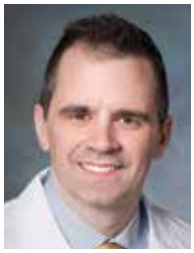
Pulse field ablation is a non-thermal technology that uses pulsed electric fields to ablate or create lesions and scar tissue to interrupt irregular electrical pathways in the heart. The PulseSelect™ System is designed to efficiently isolate the pulmonary veins, which are a major source of triggers of the arrhythmia.

COMPLEX CORONARY ARTERY DISEASE

J. AARON GRANTHAM, MD
Medical Director, Complex Coronary Intervention; Professor of Medicine, UMKC



ADAM C. SALISBURY, MD
Associate Program Director, Interventional Cardiology Fellowship; Assistant Professor of Medicine, UMKC



ANTHONY J. HART, MD
Director, Cardiac Intensive Care Unit; Program Director, Interventional Cardiology Fellowship; Clinical Assistant Professor of Medicine, UMKC

DANY JACOB, MD
Interventional Cardiologist; Clinical Assistant Professor of Medicine, UMKC

One fear shared by many patients with chronic diseases is being told there are no options for treating their symptoms. Despite stunning advances in the management of coronary artery disease, this is exactly what many patients with disabling, chronic chest pain due to complex coronary artery disease are told, when, in fact, options exist.

Advances in technology and angioplasty techniques have allowed us to treat patients who previously had few treatment options for complete heart artery obstructions, chronic total occlusions (CTOs), or multivessel blockages that cannot be treated with bypass surgery.

Saint Luke's physicians specializing in complex coronary artery angioplasty better understand how to safely care for patients with the most complicated coronary artery disease. Each year, we perform more than 100 CTO procedures and more than 50 angioplasty procedures for patients who are not candidates for bypass surgery. We have led national, multicenter studies of these techniques and publish multiple papers each year advancing insights into treatment of these patients.

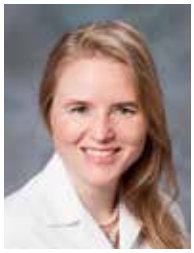
Furthermore, our team regularly shares these insights and techniques with hundreds of physicians through local courses, live case demonstrations, and national and international meetings. Our team brings a unique passion and expertise to treatment of patients with complex coronary disease, delivering the best outcomes and continuing to advance treatment techniques.

Clinical trials

We have been national lead investigators of the multi-center OPEN-CTO, OPTIMUM, and STAR studies, allowing better insight into the care of these complex patients.

Saint Luke's was again invited to participate in the Live Case Transmission Site for the 35th Annual Scientific Symposium of Transcatheter Cardiovascular Therapeutics (TCT 2023). Anthony Hart, MD, and J. Aaron Grantham, MD, direct guide wire antegrade through a chronic total occlusion of the right coronary artery.

WOMEN'S CARDIOVASCULAR HEALTH



ANNA GRODZINSKY, MD, MS
Cardiologist; Associate Professor, UMKC

VALERIE J. RADER, MD
Cardiologist; Associate Professor, UMKC

LAURA M. SCHMIDT, MD
Cardiologist; Clinical Assistant Professor, UMKC

HUNG N. WINN, MD
Medical Director, Maternal-Fetal Medicine; Professor of Obstetrics and Gynecology, UMKC

Historically, women have been underrepresented in cardiovascular research. Our program is focused on cardiovascular outcomes research in women, along with community education and advocacy.

In 2014, we launched a combined cardiology and obstetrics program. Patients in the program are seen by a cardiologist and a maternal-fetal medicine specialist in one visit. This multidisciplinary cardio-obstetric care model has led to research collaboration and high-impact publication.

Areas of focus:

Spontaneous coronary artery dissection (SCAD): The leading cause of heart attacks in women under the age of 50 and leading cause of pregnancy-related heart attacks.

Peripartum cardiomyopathy: Condition where the heart becomes weak during or shortly after pregnancy. Contributes to poor maternal and fetal outcomes.

Preeclampsia: Affects 2 – 8% of pregnancies and leads to higher likelihood of developing cardiovascular risk factors and greater risk of congestive heart failure, coronary artery disease, stroke, and cardiovascular death.

Current studies

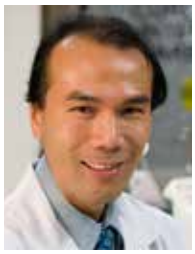
Currently, we are leading or participating in six multisite studies focused on women's cardiovascular conditions.

- We are leading the 33-site, 1,000 patient, Heart Outcomes in Pregnancy Expectations (HOPE) for Mom and Baby Study.
- One of 50 hospitals contributing to ReBirth study, a randomized control trial evaluating peripartum cardiomyopathy (PPCM) recovery
- Third highest enrolling site within the 22-hospital iSCAD Research Network and received the 2023 iSCAD Research Network Ally Award
- One of four pilot sites studying a cardiovascular disease screening tool in general obstetrics population alongside University of California-Irvine (lead), University of California-San Diego, and University of Tennessee
- We launched a registry to follow women with a history of preeclampsia to address gaps in knowledge regarding optimal screening and management of these higher risk patients.

Our women's cardiovascular multidisciplinary team presented during several sessions at the International Congress on Cardiac Problems in Pregnancy 2023. 330 attendees from more than 20 countries met in Abu Dhabi in October.

T32 CARDIOVASCULAR OUTCOMES RESEARCH POSTDOCTORAL FELLOWSHIP

JOHN A. SPERTUS, MD, MPH
Director, Outcomes Research; Daniel J. Lauer, Missouri Endowed Chair; Professor of Medicine, UMKC



PAUL S. CHAN, MD, MSc
Cardiologist and Clinical Scholar; Professor of Medicine, UMKC

DANIELLE M. OLDS, PhD, RN
Manager, Outcomes Research; Research Associate Professor of Medicine, UMKC

There is a pressing need for scholars capable of generating, interpreting, and applying evidence to improve the quality and value of health care. In conjunction with the University of Missouri-Kansas City, Saint Luke's Mid America Heart Institute offers one of the few two-year, postdoctoral training programs in cardiovascular outcomes and quality of care research.

Since 2009, we have offered a rigorous training program in cardiovascular outcomes research. We are currently in our third cycle of National Heart, Lung, and Blood Institute-funded T32 training program funding.

Our training centers on:

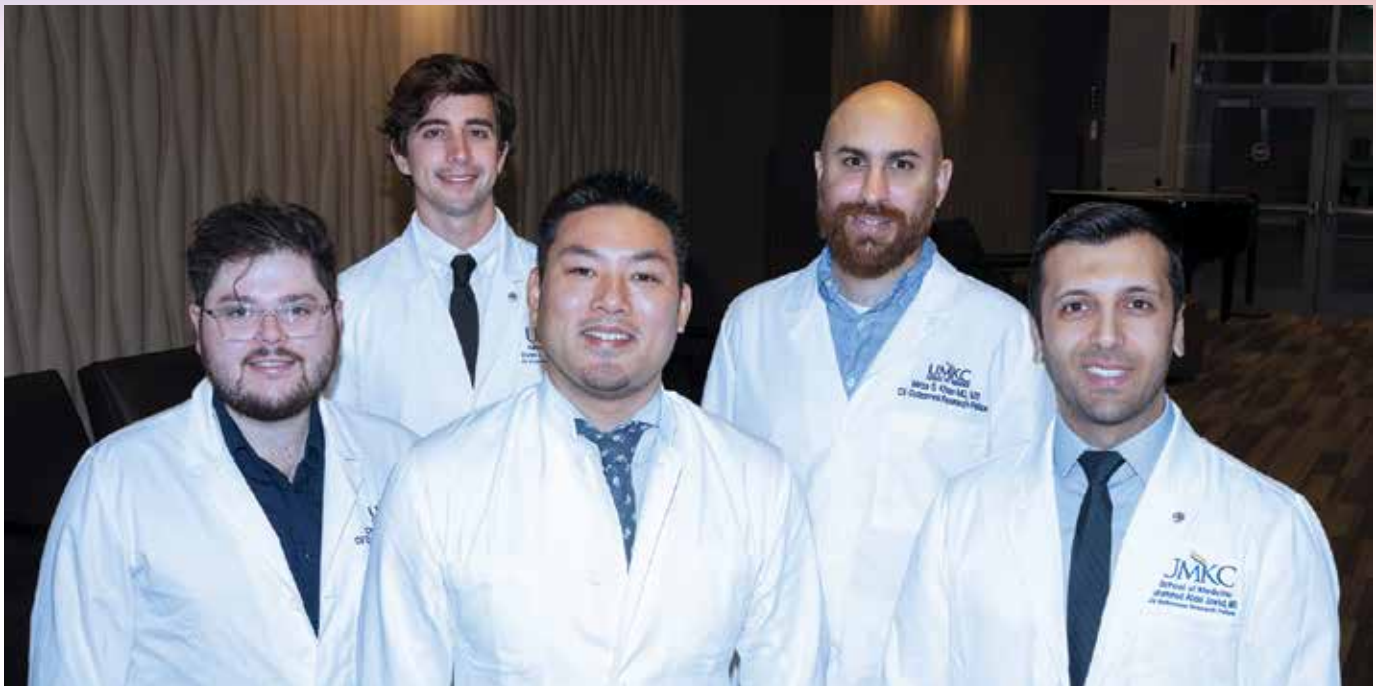
- Methods of outcomes research
- Close mentorship and support
- Independent research
- Entrepreneurship
- Implementation science

Fellows conduct studies to define the determinants of outcomes and examine variations in care. They have opportunities to design innovations in health care delivery to overcome existing gaps in care.

Publications

The program includes numerous mentors in diverse disciplines who publish more than 250 articles per year in leading peer-reviewed scientific journals, including *The New England Journal of Medicine, The Journal of the American Medical Association, Lancet, Journals of the American College of Cardiology,* and *Circulation.*

Our trainees have achieved unprecedented scientific productivity, presenting, on average, more than 15 abstracts at national conferences and publishing more than 13 peer-reviewed journal articles during their fellowships. Trainees have received numerous honors of special distinction at national conferences, such as Young Investigator Awards, and have been funded as principal or co-investigators on grants and industry-sponsored projects. More than 90% of our trainees remain in academia and have launched their own independent research programs.



2023 T32 Cardiovascular Research Postdoctoral Fellows

We offer a two-year, postdoctoral training program in cardiovascular outcomes and quality of care research.

Recognitions

- In 2022 – 2023, our T32 postdoctoral fellows won numerous awards for their contributions to cardiovascular outcomes research.
- Dan Nguyen, MS, MD, was awarded the inaugural AcademyHealth Quality and Value Young Investigator Award for his project developing an individualized shared decision-making tool for people with chronic coronary disease.
- Dr. Nguyen and co-primary investigator Stacy Farr, PhD, MPH, were awarded a grant through the Frontiers NIH Clinical and Translational Sciences Institute to investigate ways to implement the shared decision-making tool into clinical practice.
- Anezi Uzendu, MD, won the Young Investigator Award at the American Heart Association's Resuscitation Science Symposium for his work with Paul Chan, MD, on the performance of EMS agencies responding to cardiac arrest in Black and Hispanic neighborhoods.
- Charles Sherrod, MD, received the American Heart Association's Get with the Guidelines – Resuscitation Registry Early Career Investigator Award for his proposal to study disparities in in-hospital cardiac arrest outcomes for Hispanic and Asian patients.

CARDIOVASCULAR DISEASE FELLOWSHIP

JONATHAN R. ENRIQUEZ, MD
Program Director,
Cardiovascular Fellowship;
Associate Professor
of Medicine, UMKC

TAIYEB M. KHUMRI, MD
Associate Program Director,
Cardiovascular Fellowship;
Assistant Professor of
Medicine, UMKC

JEANETTE WHEELER, C-TAGME
Fellowship Program Manager

Saint Luke's Mid America Heart Institute offers a three-year clinical track and a four-year program combining an NIH-T32 training program in cardiovascular outcomes research with cardiovascular disease fellowship.

Fellows can earn graduate degrees or graduate certificates during their fellowship through the University of Missouri-Kansas City:

- **Master of Science in Clinical Research:** for future physician-scientists
- **Master of Education in Health Professions:** for future clinician-educators
- **Executive MBA:** for future physician leaders/administrators

We offer advanced cardiovascular subspecialty fellowship training in:

- Interventional Cardiology
- Clinical Cardiac Electrophysiology
- Advanced Heart Failure and Transplant Cardiology
- Structural Interventional Cardiology
- Preventive Cardiology
- NIH T32 Cardiovascular Outcomes Research Fellowship

Recognitions

Each year, our fellows are recipients of Young Investigator Awards and other prestigious national awards, honors, and grants. We have a high rate of fellow job placement after training. In the last few years our graduates went on to complete advanced training or start academic positions at Brigham and Women's, Yale, Columbia University, Wake Forest, Mayo Clinic, University of Alabama-Birmingham, MedStar, National Institutes of Health (NIH), Cleveland Clinic, University of Illinois-Chicago, or remained as faculty at University of Missouri-Kansas City and Saint Luke's.

2023 Cardiovascular Disease Fellows

THANK YOU, DONORS

Support from our community enables
Saint Luke's Mid America Heart Institute to serve as
one of the nation's leading heart hospitals.

Saint Luke's Foundation works with grateful individuals
to create philanthropic opportunities that
greatly benefit Saint Luke's and our patients.

Our donors' gracious generosity in support of our vision
allows us to grow our nationally recognized programs,
purchase leading-edge medical technology,
and enhance our commitment to education and research.

In addition, philanthropy directly supports innovation at
the Heart Institute, enabling our researchers to investigate,
identify, and provide safe, innovative technologies
and state-of-the-art treatments.

Combined, these efforts contribute to our cardiovascular
knowledge and ability to provide world-class patient care.

On behalf of our patients and their families,
we are honored and thankful for our donors' support.

Saint Luke's™
MID AMERICA HEART INSTITUTE

the intersection of
INNOVATION ◆ HOPE

4401 Wornall Road
Kansas City, MO 64111

816-931-1883
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