



GOOD NEWS!

Wake Forest University School of Medicine Cardiovascular Sciences Center

Summer 2025

WHAT'S INSIDE

Funding 2

Introducing Austin Seals,
Biostatistician II 2

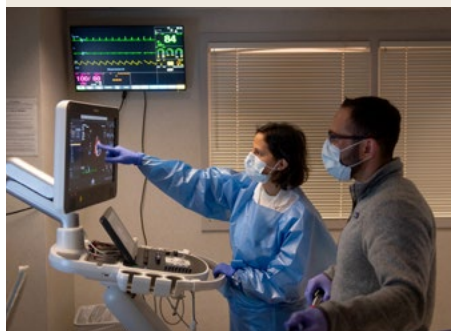
Invited Presentations 3

Career Corner 4

Announcements 6

Awards &
Accomplishments 7

Publications 8



Cheryl Bushnell, MD, MHS, FAHA Appointed as Chair of the American Heart Association Stroke Council

We are excited to share that Dr. Cheryl Bushnell, Professor of Neurology, has been appointed as the [Stroke Council Chair](#) of the [American Heart Association](#). Dr. Bushnell has been a member of the American Heart Association since 1999 and has been involved in stroke research since she was a neurology resident. As a clinician researcher, she has dedicated her career to caring for stroke patients and this distinguished appointment is evidence of Dr. Bushnell's proficiency, leadership and commitment to improving stroke prevention and translational care.



Dr. Bushnell began her tenure as Chair of the Stroke Council of the American Heart Association as of July 1, 2025, after serving for 2 years as Chair Elect. She will serve as Chair until July 2027 and lead the multidisciplinary council in achieving the mission of advancing stroke care through scientific engagement, research, and education. In this role, she will be overseeing the 13 committees within the Stroke Council, which is constantly adapting and evolving with the direction of clinical stroke care and research. She is also involved with the activities of the International Stroke Conference Program Committee, the Stroke Scientific Statements Oversight Committee, and the Science Advisory Coordinating Committee. She follows in the footsteps of Dr. Sepi Amin-Hanjani at Case Western University, who was the first female vascular neurosurgeon to lead the Council.

Please join us in congratulating Dr. Bushnell on being selected for this outstanding position and her tireless dedication to improving stroke prevention and care.

Next CVSC Pilot Funding Deadline: ~Spring 2026.

FUNDING

During the months of May to August, CVSC members were awarded 22 grants including 8 from federal agencies for a sum of ~\$12.7M and 14 from other sources for a sum of ~\$2.7M. Below we highlight awards from the CVSC.



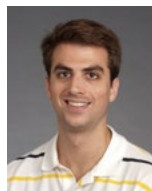
Imielski



Chappell



Khanna



Schaich

Drs. Bartlomiej Imielski (PI), Mark Chappell, Ashish Khanna (Primary Co-Is), Ettore Crimi, Ted Kincaid, Spencer Tingey, Neal Kon, Adrian Lara and **Christopher Schaich (Co-Is)** were selected as recipients of a CTSI Pilot Award for their project “Renin-Angiotensin-Aldosterone System Response to Cardiopulmonary Bypass in Patients with Vasoplegia.”



Tomar

Dr. Dhanendra Tomar was awarded a five-year NIH/NIGMS R35-MIRA grant as Principal Investigator, totaling \$1.9 million. The project, Calcium Sensing and Mitochondrial Homeostasis, investigates the role of mitochondrial calcium sensors, specifically MICU proteins, in mediating unconventional calcium sensing within the mitochondrial intermembrane space.

Dr. Shiridhar, a postdoctoral fellow in Dr. Tomar's lab, received a three-year American Heart Association Career Development Award. This grant supports his transition to a faculty position while investigating the role of CLPB in neutrophils and its modulation of neutrophil function during myocardial infarction injury.

Dr. Dhanendra Tomar received a two-year American Heart Association Innovative Project Award for his project titled Lactylation of Mitochondrial Proteins in Heart Failure, which explores the impact of mitochondrial protein lactylation on cardiac pathology and function.



Jadiya

Drs. Pooja Jadiya (PI) and Dhanendra Tomar (Co-I) received an Innovative Project Award from the American Heart Association titled “Compartment-Specific Mitochondrial Unfolded Protein Response in Alzheimer's Disease,” with a project period from 07/01/2025 to 06/30/2027.

Drs. Jadiya (PI) and Tomar (Co-I) received a Transformational Project Award from the American Heart Association titled “Targeting Mitochondrial Calcium Dynamics to Mitigate Alzheimer's Disease Pathology,” with a project period from 07/01/2025 to 06/30/2028.

Introducing — AUSTIN SEALS, Biostatistician II

Austin Seals holds a Bachelor's degree in Information Systems from Claflin University and a Master's in Data Science/Analytics from NC State's Institute for Advanced Analytics. He has been with Advocate Health since the summer of 2020, contributing to a wide range of impactful research projects.

His past work includes the Covid Research Project (CRP), which led to six published papers, as well as studies on beta blockers in cardiogenic shock, palliative care in heart failure, and quality improvement in cardiology. He has also contributed to research on telemedicine in hypertension management and cognitive outcomes in hypertensive older adults.

Currently, Austin is involved in several cutting-edge projects, including the Genomic and Proteomic Architecture of Atherosclerosis (GPAA), ECG-AI, and the development of a surrogate protein biomarker of endothelial function. He is

also working on regional studies of peripartum cardiomyopathy (PPCM), a survey for AHFTC fellows and providers, and diabetes self-management support in Nepal.



Austin is passionate about solving complex problems through data and values the opportunity to contribute to advancements in medicine. His technical expertise spans R, Python, SAS, proteomics data analysis, machine learning, and data visualization tools like Power BI and Tableau.

A proud Manchester United fan and active soccer player, Austin's favorite career memory is meeting his global collaborators from the CRP in person. He was also recognized for his contributions to CRP and had the honor of presenting CAD-GWAS research with Dr. Herrington in Valencia, Spain.

INVITED PRESENTATIONS



Bancks

Dr. Mike Bancks presented an invited talk titled “Heterogeneity, Lifestyle and Behavior, and Interventions” on June 23, 2025, at the American Diabetes Association 85th Scientific Sessions in Chicago, IL during the Symposium on Heterogeneity of Diabetes - New Initiatives from NIDDK session.

Dr. Shiridhar (postdoctoral fellow in the **Tomar** lab) presented his research on “Mitochondrial Protein Quality Control in Age-induced Cardiac Dysfunction” at both the AHA Basic Cardiovascular Science (BCVS) Scientific Sessions and the 7th Asian Cardiovascular Symposium, a pre-meeting symposium of the BCVS Scientific Sessions in Baltimore, MD.

Dr. Ashlesha Kadam (postdoctoral fellow in the **Tomar** lab) presented her work on “Mitochondrial Proteostasis in Barth syndrome-related Cardiomyopathy” at the AHA BCVS Scientific Sessions and the 7th Asian Cardiovascular Symposium.

Dr. Anupriya Sinha (postdoctoral fellow in the **Tomar** lab) showcased her research on “Intermembrane Space Proteases in Mitochondrial Stress Response” at the AHA BCVS Scientific Sessions and the 7th Asian Cardiovascular Symposium.

Dr. Shanikumar Goyani (visiting research scholar in the **Tomar** lab) presented his study on “Mitochondrial Proteostasis in Cardiac Fibroblast Activation and Fibrosis” at the AHA BCVS Scientific Sessions and the 7th Asian Cardiovascular Symposium.

Dr. Shatakshi Shukla (visiting research fellow in the **Jadiya** lab) presented her research on “Cell-specific Differences in Mitochondrial Calcium Signaling in Alzheimer's Disease” at the Alzheimer's Association International Conference (AAIC), held in Toronto, Canada.

Dr. Kunal Samantaray (postdoctoral fellow in the **Jadiya** lab) presented his research on “Lysine-lactylation of the Mitochondrial Calcium Uniporter and its Role in Mitochondrial Calcium Flux” at the AHA BCVS Scientific Sessions and the 7th Asian Cardiovascular Symposium.

Additional presentations by the **Jadiya and Tomar** lab members at the Graduate School & Postdoctoral Fellow Research Day and the 19th Annual Internal Medicine

Research Symposium, Wake Forest University, included:

- “Role of Mitochondrial Chaperon in CLPB in Cardiac Fibrosis” – Dr. Shanikumar Goyani
- “Adaptive Mechanisms of Mitochondrial Intermembrane Space Proteases” – Dr. Anupriya Sinha
- “Cristae Organization and Function Modulated by CLPB” – Dr. Ashlesha Kadam
- “Targeting Neutrophils' Mitochondrial Proteostasis in Myocardial Injury” – Dr. Shiridhar



Rinaldi

Dr. Michael Rinaldi's invited conference or virtual lectures include:

- "Pricey Progress: Are Structural Heart Procedures Breaking the Bank? during the 2025 Society for Cardiovascular Angiography & Interventions (SCAI) Meeting in Washington, DC
- “Expert Perspectives on the ACURATE IDE & PROTECTED TAVR Trials”, VuMedi Conference
- “Coronary CTA & FFRCT: An Interventional Cardiologist Perspective”, HeartFlow Teaching Series
- “PROTECTED TAVR US Cohort Data Analysis and Case Experience Sharing”, Global TAVR Cerebral Protection Therapies Symposium China



Eyadiel

Lauren Eyadiel, MMS, PA-C served as a moderator for the session "Practical Guide to the HFpEF Galaxy" during the Heart Failure Society of America (HFSA) Annual Scientific Meeting.



Wilson

Dr. B. Hadley Wilson gave three presentations, “Clinician Well-Being”, “Update in the Management of Cardiogenic Shock” and Management of Late Presentation MI” at the Chilean Society of Cardiology in Concepcion, Chile June 5-6, 2025.

B. Hadley Wilson, MD, MACC presented “Treatment of Multi-Vessel CAD and DM: PCI vs. CABG” at the 1st Annual Heart Waves-Practical Cardiology Update in Palm Beach, FL on July 10, 2025.

CAREER CORNER

The faculty and staff in the CVSC participated in our 2025 summer research training programs. Program Directors Drs. Gwathmey and Diz (Surgery-Hypertension), Soto-Pantoja (Cancer Biology), Brinkley (the Sticht Center for Healthy Aging and Alzheimer's Prevention), and South (Department of Pediatrics), welcomed 17 trainees from 15 academic institutions nationwide. Participants included one master's student, two Wake Forest University School of Medicine (WFUSM) medical students, and a third-year WFUSM resident in addition to thirteen undergraduate students. The programs emphasize research in cardiovascular health, aging, and child health and provide seminars and workshops designed to enhance research abilities, foster professional development and inform about careers in the biomedical sciences. Collaborations with additional summer programs, the Graduate School of Biomedical Sciences, and program alumni provided career resources and networking opportunities. Participants concluded their experience by presenting

their research findings at a poster session during the Summer Research Symposium on July 24, 2025.

Our training programs are designed to enhance exposure to research within the biomedical sciences. These opportunities are made possible by the exceptional mentors who provide students with substantive research experiences. We extend our sincere appreciation to all faculty mentors, postdoctoral fellows, and graduate students across many departments and centers, Dr. Claudia Olivier, Lydia Durr and Surgery-Hypertension staff members whose contributions were instrumental to the success of our summer programs. Despite considerable challenges arising from rescinded or delayed NIH funding this year, we are especially thankful for the support of our institutional leadership, whose financial assistance allowed us to continue to provide research internships for our cardiovascular and aging summer research training programs.

The following trainees and mentors participated in the programs for 2025:

Cardiovascular Participant	Undergrad Institution	Mentor(s) & Department	Project Title
Olivia L. Granger	Gardner-Webb University	David Soto-Pantoja, PhD Cancer Biology	Overcoming Cancer Therapy-Related Toxicities
Lenora Paige Ingram	Towson University	Dhanendra Tomar, PhD, MSc; Shatakshi Shukla, MSc, Cardiology	Mitochondrial Protein Lactylation and its Role in Alzheimer's Disease
Dominique Liautaud	University of Connecticut	Yashashwi Pokharel, MD MSCR Cardiology	Health System Key Players' Perspective in Implementing a Team-Based Telehealth

Aging Participant	Undergrad Institution	Mentor(s) & Department	Project Title
Hamza M. Abdul-Karim	West Virginia University	Rebecca M. Sappington, PhD, Biochemistry	Ocular Disease Markers in Non-Human Primates
Gianpiero Lara	Embry-Riddle Aeronautical University	Elliott Arryo, PhD, Health & Exercise Science	Bioelectrical Impedance Vector Analysis of Interdialytic Intervals
Elizabeth G. VanLoon	University of Minnesota Duluth	Christina E. Hugenschmidt, PhD Gerontology	Lifetime Dance Experience as a Predictor of Functional Mobility in Older Adults

TRAC Participant	Status/Institution	Mentor(s) & Department	Project Title
Alyanis V. Acevedo	Undergraduate Cornell University	Stephen M. Downs, MD, MS, Pediatrics	<i>The Impact of Prior Authorizations and Language Barriers on Timeliness and Outcomes in Pediatric Prescriptions</i>
Claudia M. Marsello	Undergraduate SUNY Geneseo	Lauren E. Bradford, MD Pediatrics: Pulmonary Medicine	<i>The Effects of Socioeconomic Factors on the Rate of Asthma Exacerbations in Children Utilizing the Child Opportunity Index in a Single Academic Hospital Center from 2020-2024</i>
Sophie L. B. Paton	Undergraduate Oberlin College	Ricardo J. Rodriguez, MD Neonatology	<i>Diagnostic Accuracy of Point-of-Care Ultrasound versus Abdominal Radiography in the Evaluation of Necrotizing Enterocolitis in Preterm Neonates: A Retrospective Cohort Study</i>
Kierstan L. Perkins	Undergraduate Tuskegee University	Carol L. Vincent, MD, MS Nephrology	<i>Standardizing Hypertension Education and Management for Pediatric CKD Through Shared Decision-Making</i>
Aparna Prasad, MD	Third Year Medical Resident Wake Forest University School of Medicine	Jennifer L. Thompson, MD Pulmonology Clinic; Lauren E. Bradford, MD, Pediatrics: Pulmonary Medicine	<i>The Effects of a Combined Pulmonary and Allergy Severe Asthma Clinic on Emergency Department Visits for Asthma Exacerbations</i>
Alisha F. Samuels	Undergraduate Cabarrus College of Health Sciences	Leah A. Chapman, PhD Neurology: Behavioral	<i>Informing Pediatric Investigations Through Adult Oncology: Dietary Patterns and the Risk of Cancer Recurrence</i>
Tanvi Sawardekar	Master's Program Indiana University	Daniel R. Kelly, MD Gastroenterology (Charlotte)	<i>Evaluating School Compliance in Pediatric Patients with Disorders of Gut-Brain Interaction (DGBI) and Avoidant/Restrictive Food Intake Disorder (ARFID)</i>
Priya Shah	Medical Student Wake Forest University School of Medicine	Stephanie S. Daniel, PhD Family Medicine	<i>First-Time Suicidality in Adolescents: How ED Disposition Relates to Return Visits</i>
Jessica A. Speckman	Medical Student Wake Forest University School of Medicine	Kacy A. Ramirez, MD FAAP Pediatrics: Infectious Disease	<i>Vaccination Status and Delay: Social Influences and Infection Variation in Pediatric Invasive Pneumococcal Disease Cases</i>
Bethany A. Wilson	Undergraduate New York University	Parrisa J. Ballard, PhD Family Medicine	<i>The Lived Experiences of Youth in an Out-of-School Time Program and Reflections on Their Decision Making</i>
Skyler K. Woods	Undergraduate North Carolina Agricultural and Technical State University	Erealda Prendai, MD FAAP Pediatrics: Gastroenterology Elizabeth T. Jensen, PhD Academic Public Health Science: Epidemiology	<i>Temporal Relationship Between Psychiatric and GI Diagnoses in Pediatric Patients with IBS and IBD</i>

ANNOUNCEMENTS

The Cardiovascular Sciences Center (CVSC) is seeking proposals for the 2026 Pilot Award Program. The projects should be those in need of support to promote new areas or technologies for cardiovascular research (basic, clinical, population), as well as to foster new collaborations, particularly across the Atrium Health System. The goal of the CVSC Pilot Program is to allow investigators (particularly early career researchers) to pursue novel and innovative ideas that will improve the likelihood of obtaining extramural funding for their research. We encourage research that uses Institutional Cores and other shared resources. The funding is also meant to allow investigators to perform critical experiments, access core facilities or improve analyses to address specific critiques raised by reviewers for already submitted and reviewed applications.

Completed applications will be due ~ Spring 2026. Please contact Dr. Liliya Yamaleyeva (Liliya.Yamaleyeva@wfusm.edu) if you need further guidance.

The [Mid-Atlantic Cannabinoid Research Collaborative \(MARC\)](#) registration is open. Registration includes attendance at all program events, including the opening reception on Friday evening, the breakfast, lunch and banquet on Saturday, breakfast on Sunday, five scientific research presentation sessions in addition to the keynote address, the plenary lecture, the banquet after-dinner talk, the lunch and learn program and poster presentations. Room registration at the Hilton Garden Inn Outer Banks in Kitty Hawk is at a reduced rate for the meeting. The Saturday lunch and learn might be of particular interest to those new to the pharmacology of cannabinoid compounds.



Registration and Abstract Submission Open!!

Mid-Atlantic Cannabinoid Research Collaborative (MACRC)
Annual Conference November 14-16th, 2025 - Kitty Hawk, NC

Hosted by Dr. Allyn Howlett & Dr. Brian Thomas,
Come join us at the beach for two days of presentations
and discussion of the latest in cannabinoid research!

Early registration discounts!

More information at: www.m-acrc.org
or email at lefevertim@gmail.com



★ **Early Registration Discount to Sept 21st**
Regular Registration to Oct 15th
Late Registration and Walk-ins to Nov 14th
Abstract Submission Deadlines:
*Oral presentations Sept 21st
*Poster presentations Oct 15th



AWARDS AND ACCOMPLISHMENTS

Dr. Michael Rinaldi was announced as one of the National Principal Investigators of the next generation Watchman Omni Clinical Trial.

Kudos to the following Sanger team members for serving on the Heart Rhythm Advocate (HRA) board of trustees which are all national level positions.

- **Dr. Satish Misra** and **Dr. Neel Patel** are serving on the Southeast Regional Council as well as the Scientific and Communications Subcommittees.
- Dr. Ravi Shah and Dr. Navid Nafissi are serving on the communications subcommittee.
- Dr. Rohit Mehta is serving on the Board.

Congratulations to **Dr. Dhanendra Tomar** who received the Rising Star Award from the Society for South Asian Heart Research (SAHR) during the annual AHA Basic Cardiovascular Science (BCVS) Scientific Sessions in Baltimore, MD.



Dr. Dhanendra Tomar (center) receives the SAHR Rising Star Award during the AHA BCVS Scientific Sessions, joined by Dr. Prasad (left), SAHR President, and Dr. Thodeti (right), SAHR Awards Committee Chair.

Kunal Samantaray, PhD (postdoctoral fellow in the **Jadiya** lab) received the Best Poster Presentation Award at the 7th Asian Cardiovascular Symposium, a pre-meeting symposium of the BCVS Scientific Sessions, held in Baltimore, MD.



SAHR trainee award winners at the AHA BCVS Scientific Sessions. Pictured are members of the Tomar and Jadiya labs: Dr. Ashlesha Kadam (front row, second from left), Dr. Anupriya Sinha (front row, third from left), and Dr. Kunal Samantaray (back row, fourth from left).

Dr. Ashlesha Kadam (postdoctoral fellow in the **Tomar** lab) was a finalist for the Best Oral Poster Presentation Award at the 7th Asian Cardiovascular Symposium, Baltimore, MD.

Dr. Anupriya Sinha (postdoctoral fellow in the **Tomar** lab) was selected for the People's Choice Best Poster Presentation Award at the 7th Asian Cardiovascular Symposium, Baltimore MD.



Eyadiel

Lauren Eyadiel MMS, PA-C served as a mentor for the Speed Mentoring Event, Heart Failure Society of America (HFSA) Annual Scientific Meeting during September 26-29, 2025.



Wilson

Congratulations to **Dr. B. Hadley Wilson** who received the honor of being one of the Charlotte Business Journal's "Healthcare Heroes" this year at an award ceremony on Sept. 11 at The Westin Charlotte.

Dr. Rajeev Dhupar was invited to join two committees at prestigious international surgical societies: The membership committee of the Society of University Surgeons, and the Wellness Committee at the American Association for Thoracic Surgery.

Wake Forest University School of Medicine will honor **Dr. B. Hadley Wilson** later this year as a new member of the 2025 Pro Humanitate: "Pillars of our Profession" Faculty recognizing a distinguished career exemplifying patient-centered values and mentoring of those in the medical profession.



Tomar

Dr. Dhanendra Tomar served as a mentor for one-on-one speed mentoring sessions and as a poster judge at the AHA Basic Cardiovascular Science Scientific Sessions held in Baltimore, MD.



Rinaldi

The SimpLAAfy Clinical Trial (Site PI-**Dr. Michael Rinaldi**; Multicampus with CMC campus, Caberrus campus and WF campus investigating anticoagulant regimens post Watchman LAAC implant) currently has the 9th highest enrollment of 70 centers.

PUBLICATIONS

During the months of May to August, Cardiovascular Sciences Center members published **147 manuscripts**. Of these, **14 were CVSC** first author publications. Below we highlight several publications.

Tiahnybik J, Siebert M, Kamimura D, Yimer W, Min YI, Bhattacharya K, Floyd J, Yang Y, Heckbert SR, Hall ME, Correa A, **Suzuki T**. Physical Activity and Incident Atrial Fibrillation in African Americans: The Jackson Heart Study. *Circulation*. 2025 Jul 15;152(2):126-128. doi: 10.1161/CIRCULATIONAHA.124.072893. Epub 2025 Jul 14. PMID: 40658760; PMCID: PMC12331144.

Abusheikha AJ, Johnson CSC, Snyder-Mackler N, Zimmerman KD, Negrey JD, Chiou KL, Frye BM, **Howard TD, Shively CA, Register TC**. Differential effects of Mediterranean vs. Western diets on coronary atherosclerosis and peripheral artery transcriptomics. *Front Nutr*. 2025 Jul 10;12:1564741. doi: 10.3389/fnut.2025.1564741. PMID: 40709334; PMCID: PMC12288352.

Lupu L, Stone GW, Cilia L, Thiele H, Daggubati R, Kereiakes DJ, Rab T, **Rinaldi MJ**, Vetrovec GW, Waksman R. Beyond the guidelines: expert perspectives on the management of AMI-related cardiogenic shock from the Cardiovascular Research Technologies (CRT) 2025 meeting. *Cardiovasc Revasc Med*. 2025 Jun;75:3-7. doi: 10.1016/j.carrev.2025.05.005. Epub 2025 May 6. PMID: 40368735.

Makkar RR, Ramana RK, Gnall E, Ramlawi B, Cheng W, Diamantouros P, Potluri S, Kleinman N, Gupta A, Chakravarty T, Samy S, Rassi A, Rajagopal V, Yakubov S, Sorajja P, Patel D, Garcia S, Yadav P, Thourani V, Wang J, **Rinaldi M**, Kapadia S, Waksman R, Webb J, Ren CB, Gregson J, Modolo R, Sathananthan J, Reardon MJ; ACURATE IDE study investigators. ACURATE neo2 valve versus commercially available transcatheter heart

valves in patients with severe aortic stenosis (ACURATE IDE): a multicentre, randomised, controlled, non-inferiority trial. *Lancet*. 2025 Jun 7;405(10494):2061-2074. doi: 10.1016/S0140-6736(25)00319-8. Epub 2025 May 21. PMID: 40412426.

Dr. Karl Richardson published a new left atrial appendage imaging guideline in the prominent *Echocardiography Journal*, *JASE*, with co-authors from Advocate Aurora, Washington University, NYU, and Baylor.

- Jain R, Wessly P, Saric M, **Richardson K**, Garcia-Sayan E, Addetia K, Howard L, Finn T, Quader N. Multimodality Imaging in Evaluating and Guiding Percutaneous Left Atrial Appendage Occlusion. *J Am Soc Echocardiogr*. 2025 Jul 25:S0894-7317(25)00397-9. doi: 10.1016/j.echo.2025.07.009. Epub ahead of print. PMID: 40716581.

Manandhar S, Chhetri S, Tannenbaum J, Alvarez M, **Pokharel Y**. Isolated right ventricular infarction - Unmasking the masquerader. *J Cardiol Cases*. 2025 May 1;32(1):36-38. doi: 10.1016/j.jccase.2025.04.005. PMID: 40697206; PMCID: PMC12277591.

Richardson KM, Dhaliwal KK, Hernandez SS, Fernando RJ, Singleton MJ, **Bhave PD**. Postoperative Transesophageal Echocardiographic Evaluation of Surgical Left Atrial Appendage Exclusion: Characterization and Predictors of Success. *Struct Heart*. 2025 Apr 4;9(8):100469. doi: 10.1016/j.shj.2025.100469. PMID: 40894368; PMCID: PMC12399235.



Wake Forest University
School of Medicine

Medical Center Boulevard
Winston-Salem, NC 27157
WakeHealth.edu