

THE

PULSE

INNOVATING
THE FUTURE
OF HEALTH



American
Heart
Association.

FROM THE CEO



As the American Heart Association celebrated its centennial in 2024, Scientific Sessions was the perfect epilogue to the year. And what better place to come together for the occasion than Chicago, where our story began.

Since our founding in 1924, deaths from heart disease have been cut in half. And deaths from stroke have decreased by one-third since we created the American Stroke Association in 1998.

But there are infinitely more lives to be saved. To meet the moment, we are driving innovations in science and technology, health policy and systems of care.

Research is the foundation of it all. In 2023-24, we invested \$235 million — more than any year in our history — to fund discoveries that improve people's health and well-being. Our Health Equity Research Networks grew to include those focused on piloting community-driven research and improving access to care in rural America. Expansion of Get With The Guidelines™ and Mission: Lifeline® Stroke further underscores our commitment to rural health.

Our Health Care by Food™ initiative is building large-scale clinical evidence for making healthy food access a covered medical benefit.

American Heart Association Ventures is bridging research funding and real-world impact, investing in evidence-based solutions to get treatments to patients and families sooner.

And our advocacy leadership includes recent victories requiring CPR training and AED access in schools and youth sports, expanding Medicaid eligibility and extending federal funding for congenital heart disease research.

You make this and more possible. Thank you for supporting our mission to be a relentless force for a world of longer, healthier lives.

With heart,

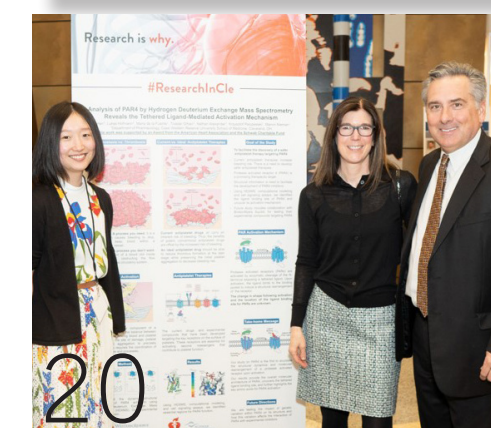
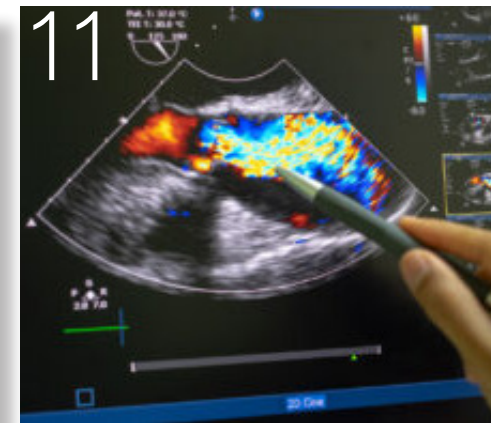
Nancy Brown

Chief Executive Officer, American Heart Association
Member, Cor Vitae Society, Paul Dudley White Legacy Society



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THE MAGIC OF SCIENTIFIC SESSIONS

A BEHIND THE SCENES LOOK INTO THE 97TH ANNUAL EVENT

The American Heart Association's Scientific Sessions is a premier event that brings together cardiovascular professionals from around the world to share the latest advancements in heart health. This annual gathering is not just a conference; it's a dynamic platform where groundbreaking research, innovative treatments and new technologies are unveiled, all aimed at improving heart and brain care and patient outcomes.

At the heart of Scientific Sessions is the exchange of knowledge. Researchers and clinicians present their findings on a wide range of topics, from basic science to clinical trials, offering insights that can lead to better prevention, diagnosis and treatment of heart disease.

Scientific Sessions serves as an important platform for young researchers and early-career professionals to showcase their work and gain recognition. This nurturing environment helps cultivate the next generation of cardiovascular health leaders, ensuring that the field continues to advance and evolve. The poster sessions at the event are a significant part of the educational experience.

These sessions feature thousands of posters that present the latest developing science in cardiovascular and stroke research. The posters are grouped into four zones by subject matter, with a fifth zone dedicated to the Best of Specialty Conferences posters. Attendees can view both Moderated Digital Posters and ePosters presented each day.

The poster sessions provide an opportunity for attendees to engage with abstract authors, ask questions, and discuss the research presented. Additionally, Rapid-Fire Forums located in each poster area draw attendees in for original science presentations and interactions with the researchers.

The poster sessions (pictured below) are an excellent way for professionals to stay updated on the latest trends and advances in cardiovascular and stroke research, exchange ideas and knowledge with peers and gain insights from key decision-makers and influencers in the field. The research and innovations presented at this event have the potential to transform cardiovascular and stroke care.



Two of the most compelling late-breaking abstracts to come out of Scientific Sessions were the BPROAD study and the SUMMIT trial.

In the BPROAD study, researchers found that for most people with Type 2 diabetes, lowering systolic blood pressure to less than 120 mm Hg led to a reduced risk of heart attack, stroke, heart failure and death due to cardiovascular disease when compared to a standard treatment approach. The optimal blood pressure target in patients with Type 2 diabetes has been debatable, and there have been differences among guidelines on the target blood pressure number.

14% of the world's people – nearly 830 million -- now have Type 2 diabetes, and more than half of them are not receiving treatment. "Future clinical practice guidelines will hopefully consider these results when making recommendations for blood pressure targets for people with Type 2 diabetes," said lead study author Guang Ning, M.D., PhD.

The SUMMIT trial found that tirzepatide – you may know it as Mounjaro or Zepbound – lowered the risk of worsening heart failure and CVD death for obese adults. Researchers found that adults with heart failure preserved ejection fraction (HFpEF) and obesity taking tirzepatide for up to three years had a reduced combined risk of worsening heart failure events and cardiovascular death and improved health status and physical function compared to participants in the placebo group.

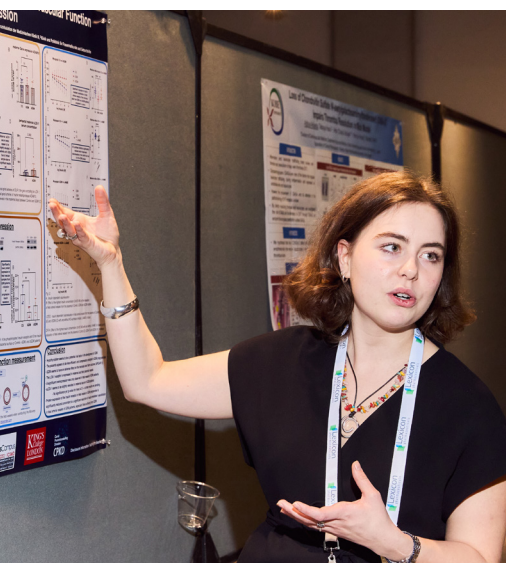
"This is the first trial to demonstrate that a medication can change the clinical trajectory of the disease in patients with HFpEF and obesity," said lead study author Milton Packer, M.D..

One of the most important aspects of Scientific Sessions is its focus on innovation. Attendees have the opportunity to explore the latest in medical technology, from cutting-edge imaging techniques to advanced surgical tools. These innovations are not just theoretical; they have real-world applications that can save lives and improve the quality of care for patients.

At the event, the Health Innovation Pavilion is a popular destination for attendees, showcasing pioneering breakthroughs in health tech and AI in modern healthcare through an Innovation Showcase, a host of speakers on cutting-edge topics and the highly-anticipated Health Tech Competition, now in its seventh year. The annual Health Tech Competition is a live forum for healthcare technology start-up companies to showcase innovative solutions for treating and preventing cardiovascular diseases and stroke. Finalists offer novel technological solutions to cardiovascular health issues such as heart failure, pulmonary embolism, and others.

The 2024 winner of the Health Tech Competition, Powerful Medical (pictured above with AHA CEO Nancy Brown and competition judge Star Jones), seeks to augment physicians and care teams in diagnosis and treatment of cardiovascular diseases using AI tools. This innovative technology was selected as the winner based on the validity of the working prototype, scientific rigor and potential impact on patient outcomes.

"At the moment, our focus is heart attack diagnostics as the number one killer, but it's just a start for us," said Martin Herman, Chief Executive Officer of Powerful Medical.





A highlight of Scientific Sessions is always the Lewis A. Conner Presidential Lecture, a prestigious event that honors Dr. Lewis Atterbury Conner, one of the founders of the AHA and its first president.

The lecture is part of the Presidential Session, which also includes updates from CEO Nancy Brown and the presentation of various awards.

Delivered this year by AHA president Dr. Keith Churchwell (pictured above on stage), the powerful presidential address focused on his family legacy of service and why the health care community must step up to lead, battle health disparities and biases, and reach people in communities to make a difference against heart disease and stroke.

Dr. Churchwell said, "And the important question my parents would always ask was: What can you do to help?" He then returned to that question, only he spun it slightly by asking the audience, "What can *we* do to help? What can we do to help accelerate progress while at this conference?"

Staring out from the stage at some of the boldest and brightest minds in medicine, Churchwell asked, "What can we do to help when we get back to our clinics and labs? And what can we do to help make a difference in our communities? None of us is expected to have all the solutions. But I've learned that each of us can do something – and together we can play parts large and small to make a difference. And not only can we...we must."

"I'VE LEARNED THAT EACH OF US CAN DO SOMETHING – AND TOGETHER, WE CAN PLAY PARTS LARGE AND SMALL TO MAKE A DIFFERENCE. AND NOT ONLY CAN WE...WE MUST."

- Keith Churchwell, M.D., FAHA
2024-25 President, American Heart Association

A PIONEERING PAST AND A BOLD FUTURE

THE AHA'S 100 YEAR VISION FOR EXCELLENCE IN RESEARCH

The American Heart Association has a rich history of funding groundbreaking research that has significantly advanced our understanding of cardiovascular health. Since our inception 100 years ago, the unfailing support of our donors has allowed us to invest over \$5.9 billion into research, making the AHA the largest non-profit, non-governmental funder of cardiovascular and cerebrovascular research in the United States.

In 1949, the AHA awarded its first research grant to Nobel Prize winner Dr. Albert Szent-Györgyi, whose research focused on understanding how muscles, including the heart, get the energy they need to contract. His work laid the foundation for future researchers to develop better treatments and therapies for heart conditions. This marked the beginning of the AHA's legacy of scientific excellence and innovation. To date, the AHA has funded the research of 15 scientists whose work has led to their Nobel Prize recognition, the highest honor in science.

The AHA's research funding continues to be a catalyst for the careers of early investigators, providing them with the support they need to pursue innovative research and make significant contributions to the field.

One of the most compelling aspects of the AHA's research funding is its commitment to supporting the most meritorious science, regardless of where it is conducted. The AHA employs a world-class peer review process that involves thousands of

volunteer researchers and leading experts who impartially review proposals for research funding. Each proposal is evaluated by experts in the same scientific field, ensuring that the assessments are both thorough and fair. The peer review process at the AHA is designed to maintain high standards of quality, improve performance, and provide credibility to the research funded. This meticulous process helps the AHA identify and fund research that has the potential to make significant contributions to cardiovascular health.

The impact of AHA-funded research is profound. It has touched the lives of every heart and stroke patient treated in the United States, contributing to the development of life-saving treatments, improving patient outcomes, and the development of gold standard treatments and guidelines used by healthcare providers worldwide.

NOTABLE ACHIEVEMENTS THANKS TO AHA-FUNDED RESEARCH:

-  **THE FIRST WEARABLE PACEMAKER**
-  **THE FIRST ARTIFICIAL HEART VALVE**
-  **TECHNIQUES AND STANDARDS FOR CPR**
-  **BLOOD PRESSURE MEDICINE AND CHOLESTEROL INHIBITORS**
-  **CLOT-BUSTING DRUGS FOR STROKE TREATMENT**

The AHA's 2028 Impact Goal

Building on over 100 years of trusted leadership in cardiovascular and brain health, by 2028 the AHA will drive breakthroughs and implement proven solutions in science, policy and care for healthier people and communities. The greatest discoveries in health must reach people where they are.

The AHA has continued to push the boundaries of cardiovascular research. Research is changing and we are changing with it. The research vision of the American Heart Association ensures our program is at the forefront, strategically evolving to not only meet the moment, but to march toward the future. Our vision emphasizes investigator-led and team research, accelerating discovery, and driving ground-breaking research outcomes. Every dollar invested in research is a step closer to a world free of heart disease and stroke.

Science and medicine volunteers help establish and direct the American Heart Association's research policies and programs, while AHA staff provide administrative and implementation support. The AHA Research Program is overseen and executed by the AHA Research Committee and guided by **12 Research Essential Elements**:

1. Develop innovative research models that integrate AHA research values and fund highly meritorious or "best" research.
2. Fund both investigator-initiated and strategically-focused research, including implementation research.
3. Support all areas of cardiovascular, cerebrovascular and brain health research, with a focus on overall health and well-being across the lifespan that drives to the AHA's 2028 goal and overall mission.
4. Identify key questions that, if answered, could provide extraordinary impact in science and toward mission.
5. Ensure a focus on diverse populations in both the makeup of the investigators we support and the participant populations of AHA-funded research.
6. Provide programs that support the pursuit of the research in question and also facilitate the expansion of investigator skills.
7. Focus on funding outstanding individuals, not just projects.
8. Clearly define and report research and translationally-oriented outcomes to all stakeholders.
9. Ensure that best practices are used for all governance and operational practice.
10. Ensure that all stakeholders – researchers, donors and other volunteers – are involved as appropriate in research activities.
11. Fund research that could provide a return on investment to be funneled back to fund additional future research.
12. Expand collaboration to leverage research dollars and outcomes.

Read more about Dr. Svati Shah, the Research Committee Chairperson that oversees strategies to achieve the AHA's Research Essential Elements, on page 23!



\$5.9B
invested in scientific
research since 1949

1,800
projects currently
supported by the AHA

2,458
peer review
volunteers

4,944
proposals reviewed for
funding last fiscal year

THE FUTURE OF MEDICINE IS NOW

HOW THE AHA IS ADVANCING AI-POWERED SOLUTIONS AND PROTECTING THE PUBLIC THROUGH TRUSTED GUIDANCE

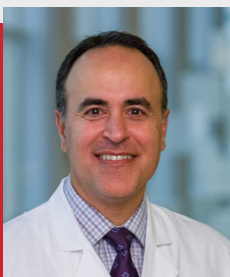
While we may not yet have flying cars and robots washing our dishes, Artificial Intelligence (AI) is already shaping our world in ways we never imagined. It has woven itself seamlessly into our everyday lives, from personalized shopping recommendations to navigation assistance and customer service bots. AI has been compared to the rise of electricity 150 years ago—both innovations experienced rapid growth and quickly became essential to everyday life.

Just as electricity revolutionized industries, AI is now driving advancements in health care, from imaging and diagnostics to robotic surgery and beyond. AI offers great promise as a tool to assist clinicians, researchers and patients, not just in enhancing care, but also reshaping the way we approach and deliver medicine.

The AHA's recently released scientific statement on the use of AI in treating heart disease identifies six of these incredible opportunity areas in which AI is or can be leveraged to ultimately improve patient outcomes and advance efforts toward precision medicine: cardiac imaging, electrocardiology, continuous bedside monitoring, mobile and wearable technologies, genetics and electronic health records (EHR). There are countless examples of how AI applications in these areas could help us save lives.

At this year's Scientific Sessions, AI took center stage, sparking discussions about how to harness its potential to advance cardiovascular health. Researchers presented on many findings (see sidebar opposite page), exploring how this technology can revolutionize diagnostics, treatment and research, highlighting the immense possibilities that lie ahead. Dr. Amit Khera, Associate Chief of Cardiology at the University of Texas Southwestern Medical Center and Chair of the Association's Scientific Sessions Committee recently shared, "AI isn't coming—it's here. It's happening so fast, and I say that not out of fear of being left behind, but out of opportunity."

As part of the Presidential Session, CEO Nancy Brown delivered several key remarks on the Association's work and investment in AI. "The AHA is already doing a number of things in AI," she stated. There are currently 189 existing research grants that are studying some form of AI in clinical practice.



"AI ISN'T COMING - IT'S HERE. WE'RE AT AN INFLECTION POINT WITH AI. IT'S GOING TO BE DOMINANT IN WHAT WE DO."

- Amit Khera, M.D., MSc, FACC, MASPC, FAHA
Chair, Committee on Scientific Sessions

Association President, Dr. Keith Churchwell, has spoken on the importance of patient involvement as AI continues to evolve. "For our patients to actually have a voice is crucial as we think about the social drivers of health," he said. "We need to ensure that AI and augmented intelligence are connected with these factors in a way that truly improves patients' clinical lives and fulfills the promise of this technology." Dr. Churchwell has also noted that there is a significant opportunity for young researchers and clinicians to shape how AI is used to enhance care.

To that end, in January an RFP (request for proposals) will be published for the AHA to select three new Centers of Excellence for AI in Cardiovascular Medicine. "This is a \$12 million dollar investment from the AHA," stated Nancy Brown, "and we're really excited to hear everyone's ideas of how we can advance ethical AI in the treatment of patients for cardiovascular disease, including stroke." As the AHA's \$12M anchor funding kick starts a new era of AI discovery, future donor funding will allow us to continue to expand our AI research opportunities.

Ensuring that AI is utilized safely and ethically remains top priority for the American Heart Association, who is now at the forefront of the efforts to address these concerns by taking on a leadership role in creating a standard equity-focused ethical framework. Seven Guiding AI Principles were established which will serve as the ethical framework's foundation: Autonomy, Accountability, Fairness, Safety and Security, Trustworthiness, Transparency and Innovation.

Additional donor support is needed to fund the full creation of the framework that will one day serve as a gold standard to guide the work of the AHA and others across the health care ecosystem to address bias and algorithmic drift in AI and establish guardrails for responsible AI use in health care. The framework will also help to continually identify protective policy and advocacy needs around AI at the state and federal levels.

As we look to the future, Dr. Khera sums it up perfectly. "The opportunities are incredible, and I'm excited for what's ahead."

AI IN ACTION

Two recent studies - both presented at the 2024 Scientific Sessions and awaiting publishing in a peer-reviewed journal - further show the promise and practicality of AI in health care.

In one study, researchers have developed a new AI program called PanEcho that can read echocardiograms, which are heart imaging tests. This AI can automatically evaluate important aspects of heart health by analyzing images from different angles. The goal is to reduce the time patients wait for their results, allowing for quicker medical care.

PanEcho is unique because it can assess all major findings from any set of echocardiography videos, unlike previous AI systems that were limited to specific views or conditions. In essence, PanEcho could make heart health assessments faster and more efficient, potentially improving patient care.

The second study tested a tool powered by AI that uses high-speed video to detect changes in blood flow in skin on the face and hands that may offer a new way to screen for high blood pressure and diabetes without the use of blood pressure cuffs, blood tests or wearable devices. The study found the system accurately detected the vast majority of high blood pressure and diabetes cases in patients in a hospital setting in Japan.

The contact-free system would allow people to monitor high blood pressure and diabetes "in the comfort of their own homes without having to undergo any tests," according to the study's lead Ryoko Uchida, a project researcher in the department of advanced cardiology at the University of Tokyo. Video monitoring allows for early detection of disease "in a non-invasive, non-contact and non-active manner, without having to constantly wear a device or go to a hospital for an examination."

TAILORED TREATMENTS, BETTER OUTCOMES

EXPLORING THE POWER OF PRECISION MEDICINE AND HOW THE AHA IS LEADING THE WAY

One size does not fit all.

These six simple words represent the fundamental concept behind the AHA's Institute for Precision Cardiovascular Medicine.

Launched in 2016 with a mission to harness data and technology, the Institute is constantly advancing cardiovascular research with a team of visionary scientists, technologists, and healthcare providers pioneering ways to develop tailored solutions for the prevention, treatment, and management of heart disease and stroke.

WHAT IS PRECISION MEDICINE?

Precision medicine is an innovative approach to healthcare that tailors treatment and prevention strategies to individual patients based on their unique genetic makeup, environment, and lifestyle. Unlike the traditional one-size-fits-all method, precision medicine aims to provide more effective and personalized care by considering the differences between individuals.

For example, in traditional medicine, a standard treatment might be prescribed for all patients with a particular condition. However, this approach does not account for the fact that people respond differently to the same treatment.

Precision medicine, on the other hand, uses information about a person's genes, proteins and other factors to determine the best

treatment plan for them. This can lead to better outcomes and fewer side effects.

Precision medicine in cardiology often involves using advanced technologies to tailor treatments to individual patients, such as the use of AI to analyze electrocardiograms (ECGs) and predict heart conditions that can lead to heart failure. This AI-assisted screening tool has shown a high accuracy rate, helping doctors identify at-risk patients early and provide targeted treatments.

In the realm of brain health, precision medicine is making strides in treating neurodegenerative diseases. Precision medicine approaches in neurology often involve using genetic data and biomarkers to develop targeted therapies for conditions like Alzheimer's disease and Parkinson's disease.

One of the Institute for Precision Medicine's key achievements is its Data Science Initiative, which provides researchers with secure access to some of the world's largest datasets on cardiovascular health (see opposite page). This data empowers scientists to uncover new connections between lifestyle, genetics and cardiovascular conditions, enabling breakthroughs that can drive more effective, personalized care.

The Institute also supports the next generation of innovators through research grants and fellowships, funding projects that explore everything from AI in diagnostic imaging to wearable technology for remote monitoring.

PRECISION MEDICINE PLATFORM

**Streamlined access to diverse data.
Intuitive workspaces with the power of AI.
A game-changer for researchers.**

Launched in 2016 through the AHA's Institute for Precision Cardiovascular Medicine, the Precision Medicine Platform is a strategic collaboration with Amazon Web Services that opens up data and analytical tools to all researchers across the globe to support and strengthen our mission to be a force for longer, healthier lives for all.

The Platform is a cloud-based system that allows researchers to collaborate and analyze large datasets from any computer in the world using a secure environment and the power of machine learning. The Platform has changed the way research is performed by making its data and analytical tools available to all researchers, including those whose perspectives have historically been excluded, such as researchers in developing countries, rural America and from disadvantaged backgrounds. The platform also provides a new, transparent view into the evidence and methods that substantiate each discovery, offering the validation and replication that the public expects from the scientific community.

Closing the Gaps Between Evidence, Guidelines, Implementation, and Equity

Within the research interface, users have access to assorted datasets, including the industry-changing Get With The Guidelines® registry data, to accelerate findings into impactful discoveries.

Get With The Guidelines (GTWG) is a proven in-hospital approach to improving patient outcomes across cardiovascular and stroke focus areas. Each Get With The Guidelines program promotes consistent adherence to the latest research-driven guidelines and measurement, while providing data and information to professionals for continual improvement in patient care.

GTWG data is collected from over 2,800 hospitals across the United States and includes over 14 million patient records, kept appropriately secure for confidentiality, creating vast databases for advancing scientific research. Using this data, AI and machine learning can accelerate life-saving discoveries and innovations, including building predictive models that lead to early identification of cardiovascular disease and stroke.

DRIVING IMPACT WITH SPECIALIZED RESEARCH

HOW THE AHA'S STRATEGICALLY FOCUSED RESEARCH NETWORKS ARE DRIVING BREAKTHROUGHS

The American Heart Association's Strategically Focused Research Networks (SFRNs) exemplify a commitment to fostering a collaborative environment where transformative ideas thrive. Through focused group research, the organization's multiple SFRNs throughout the country are translating discoveries from the lab to the bedside faster than ever before. Each SFRN is a collaborative network, bringing together leading scientists, clinicians and researchers across institutions to zero in on specific priorities, such as obesity, heart failure, vascular disease and more.

The Obesity SFRN, for example, is pioneering research that could change the way we understand and treat obesity. Scientists in this network recently identified genetic markers that influence both weight gain and cardiovascular risk. By pinpointing these genetic variations, researchers are developing approaches to create tailored, individualized obesity treatments. This breakthrough means that in the future, obesity treatment could become as targeted as cancer therapies, based on a patient's specific genetic makeup.

Another major stride has come from the Vascular Disease SFRN, where researchers are advancing early detection methods for peripheral artery disease (PAD). PAD is a dangerous condition that often leads to severe complications if not detected early, including limb amputation and increased risk of heart attack and stroke. The SFRN's work in this area is changing the standard of care, enabling doctors to identify PAD sooner and prevent life-altering consequences through timely interventions.

Equally impactful is the work of the Heart Failure SFRN, where researchers are exploring innovative ways to regenerate heart muscle that has been damaged by heart attacks, a crucial step toward reversing heart failure. By understanding the complex cellular processes behind heart muscle repair, this network is paving the way for therapies that could one day heal damaged hearts.

The AHA's SFRNs offer exceptional fellowship opportunities for postdoctoral graduates and aspiring researchers. These fellowships are designed to enhance the integrated research and clinical training of promising trainees who aim to pursue careers in cardiovascular and cerebrovascular health. Fellows benefit from invaluable experience, strong mentor support, networking opportunities and the chance to present their research to peers at AHA conferences such as Scientific Sessions.

The AHA's most recently launched SFRN seeking support from interested donors is centered on cardio-kidney-metabolic disorders in women. This pioneering network addresses the unique challenges women face in these intertwined areas, focusing on conditions like hypertension, diabetes, and kidney disease—all of which heighten cardiovascular risk.

Researchers across leading institutions are uniting to uncover gender-specific factors, advance early detection and develop tailored interventions for women. By prioritizing this research, the AHA aims to transform how these complex, interrelated health issues are understood and treated.



Top: The Bugher Foundation was recognized in 2018 for their \$11.1M gift to the American Stroke Association. Left: The Bugher Trustees (from left): Bryan Adams, Gayliss Ward, Bruce Adams. (Photo courtesy of Bugher Trustees)

A BEACON OF PROGRESS IN STROKE RESEARCH

With more than \$63 million in gifts, the Henrietta B. and Frederick H. Bugher Foundation is among the most generous donors in the history of the American Heart Association and a prolific supporter of the work done through SFRNs. With a large portion of those donations going toward brain health, the Bugher Foundation is the top funder of stroke research in AHA history.

The namesakes of the Foundation, Frederick and his wife Henrietta, built their fortune mainly from real estate. When they died, that fortune went to their only living child, Fred Bugher. Mainly for tax purposes, Fred's lawyer set up a foundation. IRS rules required a purpose. Because both his parents died of heart disease, Fred chose cardiovascular research. Fred died in the early 1980s with no heirs and his money then went to the Foundation. The plan was to spend the funds on cardiovascular research, so it made sense to go to the organization already leading the way in that field - the AHA, of course.

But money isn't the only precious gift given by Trustees of the Bugher Foundation. They've provided transformative ideas, too. The Foundation has been a driving force in advancing the American Heart Association's mission to improve cardiovascular health, with a particular emphasis on one of the most challenging and life-threatening conditions: hemorrhagic stroke. By prioritizing an area with historically limited funding and attention, the Henrietta B. and Frederick H. Bugher Foundation has become a beacon of progress and compassion in stroke research. Their commitment has allowed the AHA to take bold steps in hemorrhagic stroke research, transforming the outlook for thousands of patients and driving the field closer to life-saving innovations.

From the start, back in 1984, the Bugher Trustees wanted to invest not only in science but also in scientists — primarily early-career scientists. By funding their research ideas, Trustees encouraged young researchers to remain in the field. About 90% of the Foundation's original 122 grant recipients indeed remained in research, including a future AHA president and the scientist who came up with a major improvement for stents, the tiny tubes frequently used to resolve heart attacks.

Over the decades, the Bugher Foundation has funded five multi-year projects, each with a different focus, but the emphasis on up-and-comers has remained. Along the way, Trustees noticed something. While early-career scientists described their work with a lot of passion, their presentations were way too technical. So the Trustees began offering training to help researchers translate their work for the masses. As a result, Bugher alums have since landed many other large grants, promotions and more.

Then there's their biggest idea — implementing a time-tested business principle that had yet to gain traction in the world of medical science. In biz-speak, it's known as cross-institutional collaboration. More simply, it's turning research into a team sport.

The Bugher Foundation Centers of Excellence were founded with a singular goal: to accelerate progress in understanding, preventing, and treating hemorrhagic stroke. Unlike ischemic strokes, which are caused by blood clots, hemorrhagic strokes result from blood vessel ruptures in the brain, often leading to severe and sudden complications. With few treatment options and limited research compared to other types of stroke, hemorrhagic stroke remains an urgent area of study. The Bugher Foundation recognized this need and responded with visionary support that enabled the AHA to establish multiple Centers of Excellence dedicated to hemorrhagic stroke research.

These centers bring together top-tier researchers from across disciplines to tackle hemorrhagic stroke from multiple angles—studying its genetic, biological, and environmental risk factors while innovating new treatment protocols. By fostering collaboration among experts in neurology, cardiology, genetics, and biomedical engineering, the Bugher Foundation has set the stage for breakthroughs that are already reshaping patient outcomes and expanding our knowledge of brain health.

The impact of the Bugher Foundation's Centers of Excellence extends beyond the laboratory, directly translating to patient care. Research funded by the foundation has led to enhanced diagnostic tools that help clinicians assess hemorrhagic stroke risk more accurately, as well as promising new approaches to treatment and recovery. For families affected by this devastating condition (like Daniel Ganier, story on opposite page), these advances offer not only hope but also tangible improvements in survival rates and quality of life.

Many decades have passed since the Foundation established their support, and so too has the torch amongst the Bugher Trustees. The three currently serving Trustees are Bruce Adams, Bryan Adams and Gayllis Ward. Each follows in the footsteps of previous Trustees, ensuring the legacy of the Henrietta B. and Frederick H. Bugher Foundation lives on in every life improved and every advancement made in hemorrhagic stroke care.

"PROFESSIONALLY, I AM SO GRATEFUL FOR THE RELATIONSHIP BETWEEN THE AHA AND THE BUGHER FOUNDATION — AND, PERSONALLY, THE SAME IS TRUE FOR HOW I FEEL ABOUT THE TRUSTEES. THEY ARE THOUGHTFUL, PREPARED AND INNOVATIVE IN EVERYTHING THEY DO, ALWAYS PUSHING US FORWARD AND ALWAYS WITH AN EYE TOWARD HELPING PEOPLE."

- Nancy Brown

Chief Executive Officer, American Heart Association

TRAGEDY TURNED TO TRIUMPH

ONE YOUNG MAN'S STORY OF STROKE SURVIVAL

On the day after Thanksgiving in 2022, 29-year-old Daniel Ganier was at home decorating the Christmas tree with his 3-year-old daughter, Dakiyah, enjoying some holiday time together. But just after hanging the last decoration, he was hit with an intense, throbbing headache.

When Daniel's wife, Denisha, arrived home from Black Friday shopping, she was alarmed to find her husband doubled over in pain from what's known as a "thunderclap headache," a sudden and severe headache that peaks within seconds. Despite his insistence that he was fine, Denisha knew something was seriously wrong. As Daniel's symptoms escalated with nausea and confusion, she urged him to seek medical help.

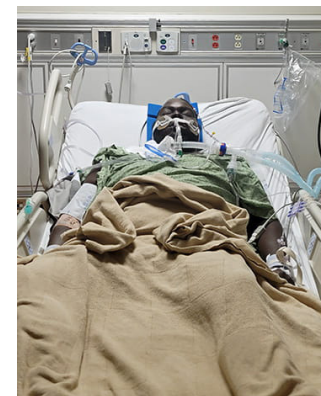
At the hospital, Daniel lost consciousness, and doctors rushed to identify the cause. He was diagnosed with a ruptured aneurysm, which required emergency surgery. A team of specialists joined forces to save Daniel's life. While the initial procedure went well, the days that followed brought even more challenges. Daniel's heart stopped, he developed a blood clot in his lungs, his kidneys began to fail, and he required ventilator support for over a month. His condition was so critical that his care team prepared Denisha for the worst.

Denisha recalls the compassion of the care team, who sat with her and explained each step of Daniel's journey, showing her what was happening to his brain and what to expect in the coming days. "It's something I'll never forget," she says. "The collaboration was amazing."

Thanks to a collaborative team of care providers including cardiologists, ICU physicians, physical therapists and infectious disease specialists, Daniel made a full recovery. His young age aided his recovery, but it was the team effort by the physicians on his care team that helped Daniel survive.

Today, Daniel is thriving once again, living an active lifestyle and focusing on his health. Reflecting on his experience, Daniel expresses deep gratitude: "Honestly, I feel blessed. Strokes do affect people like us," Daniel emphasizes.

"They're not just reserved for our grandparents—a stroke can happen to anyone."



L: Daniel Ganier in the hospital after his emergency surgery.
R: Daniel Ganier with wife Denisha. Photos Courtesy of the Ganiers

HEALTH EQUITY: A TEAM APPROACH

THIS RESEARCH NETWORK IS INCLUDING COMMUNITIES IN THE RESEARCH THAT WILL IMPROVE THEIR HEALTH

In a groundbreaking initiative launched this summer, the American Heart Association and the Robert Wood Johnson Foundation (RWJF) have formed a \$20 million research program aimed at reducing health inequities and improving health outcomes. This ambitious project focuses on engaging historically underrepresented communities in research to develop solutions that enhance their overall health and well-being.

The Health Equity Research Network (HERN) on Community-Driven Research Approaches is funding collaborative teams of scientists and community leaders from Furman University, Yale University, and the University of California-San Diego. These teams will work with community-based organizations in South Carolina, New York and California respectively to address health disparities through innovative research projects.

A key component of this initiative is the CONNECTOR community engagement resource center, managed by the University of Texas Health Science Center at San Antonio. This center will provide training, consultation, and guidance to the network teams, ensuring that the research is both impactful and community-focused.

"This new innovative research network aligns with the American Heart Association's multi-pronged approach to advance cardiovascular health for all, including identifying and removing barriers to health care access and quality, increasing equity, diversity and inclusion in science and fostering more diverse research," said Keith Churchwell, M.D., FAHA, AHA president and chair of the volunteer writing committee for the organization's presidential advisory on health disparities.

The exciting work through this HERN exemplifies the AHA and RWJF's commitment to transforming health through community-driven research, ultimately aiming to make health a right for everyone, not a privilege.

The three targeted research projects, which began on July 1, 2024 and will run for five years, include:

JUSTResearch, FamJUSTICE and InJUSTICE

Yale University SEICHE Center for Health and Justice and JustLeadershipUSA

This team will explore why people who are incarcerated, along with their family members, are likely to have an increased risk of poor health, especially poor heart health. The team will collect data to determine what health risk factors may be most prevalent among people in prison and their family members and what types of interventions might be most successful to improve health.

Amplifying Community Power in the Research to Identify Systems Changes Towards Health Equity

Furman University and LiveWell Greenville

This team will study perception of community power among people from underrepresented communities, as well as how local government stakeholders view community input in their work. They will study the effectiveness of community-based research projects in which individuals with lived experience have a more powerful voice, and specifically, how that may improve chronic disease and health inequities.



"THESE NETWORKS ARE DESIGNED TO IDENTIFY WAYS TO AGGRESSIVELY ADDRESS ADVERSE SOCIAL DETERMINANTS OF HEALTH WHILE ENGAGING THE VERY PEOPLE WHO ARE MOST IMPACTED IN IMPROVING THEIR INDIVIDUAL AND COMMUNITY HEALTH."

- Keith Churchwell, M.D., FAHA
2024-25 President, American Heart Association

Advancing Food Justice Through Partnered Community-Driven Research

University of California San Diego and YMCA of San Diego County

This team (pictured below) will advance food justice – the belief that everyone should have access to healthy and sustainable food – in California's San Diego County through three core programs: a community-led granting program that funds community priorities, an academic-led scientific methods program to support community-led grants, and a postdoctoral training program.

The team's vision is that everyone, everywhere will eat healthful diets and achieve cardiovascular health through research and collective action work that is community-driven, diverse and inclusive.



Above - L to R: Aimee Zeitz-Gruber, Executive Director of community well-being at the YMCA of San Diego; Earl M. Felisme, Chair for the San Diego Childhood Obesity Initiative Community Council; Blanca Meléndrez, MA, Executive Director of Altman Clinical Translational Research Institute Center for Community Health at UC San Diego; Cheryl A.M. Anderson, PhD., MPH, MS, FAHA, Professor and Dean at Herbert Wertheim School of Public Health and Human Longevity Science (HWSHP), and Eric Hekler, Professor at HWSHP. Photo Courtesy UC San Diego.
Right - Photo courtesy YMCA of San Diego County.

INVESTING IN THE FUTURE

Tom Hablitzel, a member of both the Cor Vitae Society and Paul Dudley White Legacy Society, was first asked to volunteer for the Cleveland Heart Walk more than 10 years ago. It wasn't a difficult decision. "I was recruited by two highly respected women in my professional network, who were both aware of my personal connection to the AHA's Mission. They were both current AHA board members and it was, with their encouragement, an easy decision for me," he said.



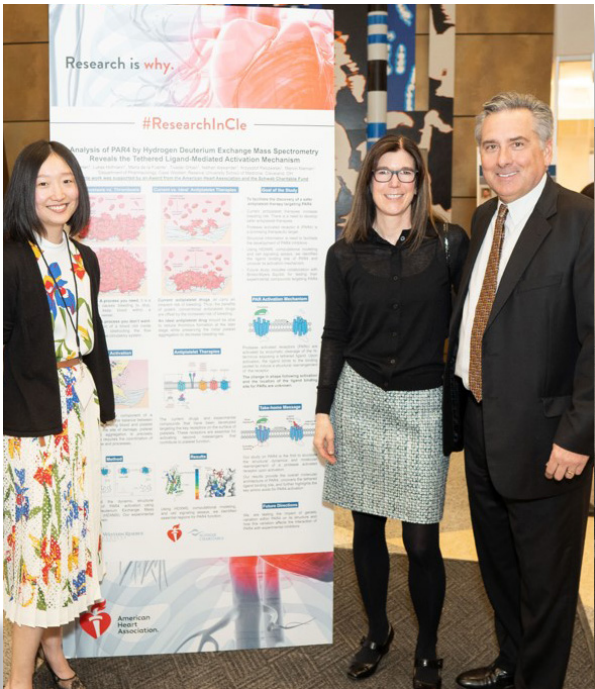
Tom's mother Jo Ann Hablitzel (pictured left) died suddenly at the age of 61 due to complications following a mild heart attack and an allergic reaction to a blood thinning medication. Tom said, "My mom was a very special person, one of seven children, a mother of four and a school teacher for nearly thirty years. She was a well-liked and respected person in the community. She always worked very hard and looked for opportunities to help her students and neighbors." As a teacher, Jo Ann certainly instilled the value of education into Tom and his siblings. Since her passing, Tom and his family have established scholarships in her name as well as the annual Jo Ann Hablitzel Legacy Research Reception in Cleveland. The event rotates between hospital systems in the area each year, connecting funders with researchers and showing off the latest advances in cardiovascular science.

Tom describes one of his most impactful experiences while attending a Cleveland Heart Ball and listening to the words of two doctors being recognized for their lifetime achievements. "At a very proud moment in the lives of two highly respected cardiologists, they recognized their career paths were greatly influenced by benefiting from the funding of an AHA grant." Tom set off on a new path of support.

When Tom first chose to fund a research project with the American Heart Association, he chose a researcher who was studying the impact of blood thinners - the cause of his mother's fatal reaction. The researcher was working at Case Western Reserve University, right in Tom's own community. He said, "it felt beyond coincidence, that we found a grant in Cleveland at a University where I was serving on an Advisory Board, that was researching the cause of my mother's death. It provided a time of healing to a great personal loss as well as confidence we were making a great decision in helping others."

He and his wife Jan have now funded multiple researchers. "Like Isaac Newton said, 'we're standing on the shoulders of giants' and now in the AHA's second century, it's a great time to recognize those who came before us, but nothing is more important than what's in front of us."

"I RECOGNIZED THAT FUNDING A RESEARCH GRANT WAS NOT A DONATION, BUT RATHER A VERY POWERFUL INVESTMENT IN OUR FUTURE."
- Tom Hablitzel



Above and opposite page: The Hablitzels with researchers they have funded. Photos Courtesy of the Hablitzels

AHA RESEARCH AWARDS ARE FOSTERING THE NEXT GENERATION OF RESEARCHERS

The American Heart Association is at the forefront of funding groundbreaking cardiovascular and cerebrovascular research in the U.S. Each year, generous donors help fund a variety of research programs, including one-time grants, to drive innovation and discovery. From investigator-initiated research to topic-focused funding and data science grants, the AHA supports scientists at all career stages.



Institutional Award for Undergraduate Student Training
Encourages students from all disciplines to consider research careers. Awarded to qualified institutions that can offer a meaningful research experience that supports the AHA mission for undergraduate college students.

AHA Predoctoral Fellowship

Enhances the integrated research and clinical training of promising students who are enrolled in pre-doctoral or clinical health professional degree training programs and who intend to embark on careers as scientists, physician-scientists or other clinician-scientists, or related careers aimed at improving global cardiovascular health.



AHA Postdoctoral Fellowship
Enhances the integrated research and clinical training of postdoctoral applicants who are not yet independent. Applicant must be embedded in an appropriate research group with the mentorship, support, and relevant scientific guidance of a research supervisor.

AHA Institutional Research Enhancement Award (AIREA)

Supports small-scale research projects related to cardiovascular disease and stroke at educational institutions that provide baccalaureate or advanced degrees but that have not been major recipients of NIH support. Includes any part of the full range of research and development, from very basic to clinical.



Career Development Award
Supports highly promising healthcare and academic professionals in the early years of one's first professional appointment to explore innovative questions or pilot studies that will guide future strategies related to all aspects of cardiovascular and stroke research. Requires a supportive mentoring team and a career development plan.

Collaborative Sciences Award

Fosters innovative, new collaborative approaches to research projects which propose novel pairings of investigators from at least two broad disciplines. Focuses on the collaborative relationship, such that the scientific objectives could not be achieved without the efforts of at least two co-principal investigators and their respective disciplines.

Established Investigator Award

Supports mid-career healthcare and academic investigators with unusual promise and in rapid growth phase, who have established records of accomplishments, and demonstrated commitment to questions related to cardiovascular or cerebrovascular science.

Innovative Project Award

Funds ideas that may introduce new paradigms, challenge current paradigms, look at existing problems from new perspectives, or exhibit other uniquely creative qualities.

Transformational Project Award

Represents the second phase of a new idea that is the next logical step of previous work, and should already be showing a high probability of revealing new avenues of investigation, if successful.

Merit Award

Supports individual scientists with trajectories of success, who propose novel approaches to major research challenges in the cardiovascular and stroke areas that have potential to produce unusually high impact.

International Visiting Professorship Award

Supports bringing internationally based scientists to the U.S. for one week to foster scientific exchange. The goal of the program is to expand research experiences and collaborative opportunities for both the awarded Visiting Professor and his/her U.S.-based host in areas of research that align with the mission of the AHA.



BLAZING TRAILS

CELEBRATING THE WOMEN WHO HAVE PIONEERED
RESEARCH OVER THE AHA'S 100 YEARS



Helen B. Taussig, M.D.

A pioneer in pediatric cardiology, Dr. Helen Brooke Taussig is known as the founder of pediatric cardiology for her innovative work on “blue baby” syndrome and made history as the first female president of the American Heart Association.

Despite suffering from dyslexia, Taussig excelled in higher education. She earned a B.A. degree from the University of California at Berkeley in 1921, and after studying at Harvard Medical School and Boston University she transferred to Johns Hopkins University School of Medicine to pursue her interest in cardiac research.

By the time she graduated medical school, she had lost her hearing and had to rely on lip reading and hearing aids. Some of her innovations in pediatric cardiology have been attributed to her ability to distinguish the rhythms of normal and damaged hearts by touch, rather than by sound.

In the 1940s, she identified that “blue baby” syndrome, formally known as Anoxemia, is caused by a defect that prevents the heart from receiving enough oxygen and could be treated. She helped develop the groundbreaking Blalock-Taussig shunt, which redirected blood flow to the lungs, saving thousands of children’s lives and laying the foundation for modern heart surgery.

In 1954, Helen Taussig received the prestigious Lasker Award for her work, and in 1959, she was awarded a full professorship at Johns Hopkins University, one of the first women in the history of the school to hold that rank.

Taussig was elected president of the American Heart Association in 1965, and was the first woman recipient of the highest award given by Johns Hopkins University School of Medicine. In 1964, Taussig received the Medal of Freedom from President Lyndon Johnson. Her legacy of resilience and discovery remains central to the AHA’s mission today.



Mildred Cohn, PhD

The AHA selected biochemist Mildred Cohn as its first female career investigator, providing funding for the final 14 years of her research career. Her work contributed to the development of the MRI, one of the most sophisticated imaging methods used today.

Dr. Cohn’s commitment to scientific discovery highlighted the critical role of female researchers in advancing medical technology.

Svati H. Shah, M.D., MHS

Dr. Svati Shah has devoted her career to unraveling the genetic and metabolic complexities behind cardiovascular disease—areas often overlooked in traditional research. As chair of the American Heart Association’s Research Committee, she oversees and executes strategies to achieve the AHA’s Research Essential Elements (featured on page 9), which include research funding, investigator development, accountability and optimization. In 2022, she was honored with the AHA’s Genomic and Precision Medicine Mentoring Award, recognizing her extraordinary dedication to mentoring future scientists and advancing the field through collaborative, well-rounded training.

“I knew from a very young age that I wanted to be in health care,” she said. “And I just loved science.” This love for science propelled her through medical school and into a residency at Harvard, where she chose to specialize in cardiology—a field that perfectly marries patient interaction with groundbreaking research. It was here that she was encouraged to explore genetic epidemiology, a pivotal moment that would shape her career.

As the director of the Duke Precision Genomics Collaboratory, Svati leads efforts to harness the power of genomic data to identify risks for various diseases. Her work is not just about research; it is about saving lives and advocating for those who often feel voiceless in the medical community.

Svati’s experience as a mother adds another layer to her commitment to improving health care. After her eldest son was diagnosed with a rare condition, she understood firsthand the challenges families face when navigating the complexities of genetic disorders. This experience deepened her resolve to ensure that future generations receive the care and attention they deserve. Today, as she continues to break barriers for women in science, she reminds us all of the importance of representation and perseverance.



Dr. Svati Shah with sons Kieran and Kellan

**“MANY OF US WERE TOLD WE CAN’T DO EVERYTHING.
WE CAN. WE’RE CAPABLE OF BEING GREAT MOTHERS,
GREAT SCIENTISTS, GREAT DOCTORS. YOU CAN DO IT ALL.”**

- Dr. Svati Shah

RESEARCH GOES RED

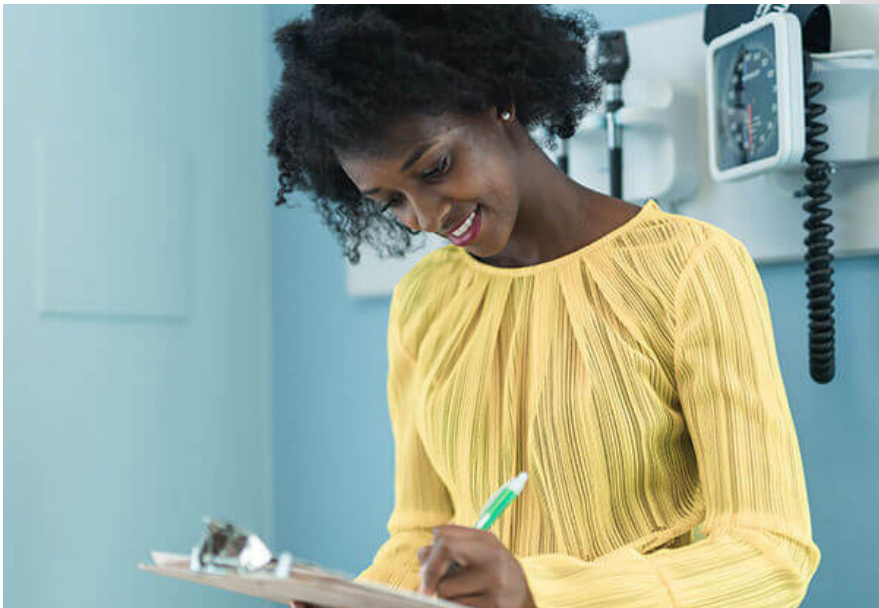
ADVANCING WOMEN'S HEALTH THROUGH GENDER-SPECIFIC RESEARCH EFFORTS

Many knowledge gaps remain in the study of heart disease and stroke, particularly in the ways women - especially those from different racial and ethnic groups - are disproportionately affected. Compared to other women in the U.S., Black women have the highest rates of high blood pressure, stroke, heart failure and coronary artery disease. They are historically less likely to be included in clinical studies.

There is a dire need for women to be equally represented, allowing us to understand their specific risks, symptoms, diagnosis and treatment. Launched in 2019, **Research Goes Red** has sought to remedy that. The continued vision for Research Goes Red is to create the world's most engaged and largest women's health registry and platform for research. Yet as of 2020, women still only represent 38% of research participants.

A 2022 presidential advisory from the American Heart Association reported that women continue to be underrepresented in research for cardiovascular disease (CVD), leading to gaps in knowledge and understanding of how CVD impacts women. The advisory emphasizes that some risk factors for heart disease are specific to women or carry a different risk for CVD events in women than in men, often in relation to the way life stages affect heart health.

The more we know about women and their overall health and well-being, the better we can treat, beat and prevent cardiovascular disease.



By joining Research Goes Red, you can:

- **Contribute via clinical research, surveys and focus groups**
- **Only participate in the studies that you're interested in**
- **Help shape the future of disease management and care**
- **Learn about your own health while helping improve health for all**

New surveys and studies are added often. You can help save more women's lives by joining Research Goes Red today. The time is now and we need your help.

Join now at www.projectbaseline.com/gored.

The American Heart Association's Go Red for Women® movement is the trusted, passionate, relevant force for change to end heart disease and stroke in women all over the world. While nearly 80 percent of cardiac events can be prevented, cardiovascular disease is the leading cause of death in women, claiming the lives of 1 in 3 women. For 15 years, Go Red for Women has provided a platform for women to come together, raise awareness, fund lifesaving research, advocate for change and improve the lives of all women.

The American Heart Association's Go Red for Women movement is nationally sponsored by CVS Health, with additional support from national cause supporters.

INTERNATIONAL RESEARCH CHALLENGE TO TACKLE KNOWLEDGE GAPS IN WOMEN'S CARDIOVASCULAR HEALTH

The American Heart Association is joining with other top cardiovascular research funders from around the world to support an international scientific research grant focused on women's cardiovascular health. Interested researchers are invited to apply for the award to foster global advancements in understanding and improving the diagnosis, treatment and prevention of cardiovascular disease among women.

The grant will be awarded by the Global Cardiovascular Research Funders Forum (GCRFF) – an international alliance of 12 major funders of cardiovascular research across the world. The International Research Challenge on Women's Cardiovascular Health will fund one world-class international research program, with up to \$10 million awarded over five years, to study and identify solutions to unmet clinical needs within women's cardiovascular health, including:

- Risk factors and prevention of cardiovascular disease across women's life stages;
- Clinical diagnosis and treatment of conditions more prevalent, or with worse outcomes among women; and
- Sex-specific underlying mechanisms of cardiovascular disease in women.

"The American Heart Association is a leader in accelerating cardiovascular research and education, and in particular, bringing light to the unique challenges cardiovascular disease presents to women," said Mariell Jessup, MD, FAHA, chief science and medical officer of the AHA and a board member of the GCRFF.

This first-of-its-kind research funding opportunity will support a multi-institutional, multi-disciplinary research network to bring together experts from around the world. The chosen research team will work collaboratively to deliver impacts in women's cardiovascular health that no single continent, country or institution could achieve on its own.

"That all 12 members of the GCRFF have come together to support a common project in women's cardiovascular health – the consortium's first large-scale research project – sends a powerful message: This area is important, it deserves more attention and we as funders are committed to doing something about it," said David Tancredi, MD, PhD., current chair of the GCRFF Board and president of the Leduq Foundation, a member organization of the GCRFF.

The International Research Challenge will invite proposals focused on advancing women's cardiovascular health in areas that are under-researched and/or require greater understanding. Letters of intent to apply for the research challenge are due by January 15, 2025.



"WE ARE PLEASED TO BE JOINED BY OTHER LIKE-MINDED ORGANIZATIONS IN MAKING THIS COMMITMENT TO ADDRESS THE SIGNIFICANT GAPS THAT REMAIN IN RESEARCH, DIAGNOSIS AND CARE FOR WOMEN EVERYWHERE AS PART OF OUR MISSION TO ENSURE EQUITABLE HEALTH FOR ALL PEOPLE."

- Mariell Jessup, M.D., FAHA
Chief Science and Medical Officer
American Heart Association

A LOVE OF RESEARCH

Nearly 40 years ago, inside the bustling halls of the National Institute of Mental Health in Bethesda, Maryland, two young researchers found themselves working on the same neuroscience project. For Dr. Debra Diz, a postdoctoral fellow, and Dr. Mark Chappell, an undergraduate from American University, it seemed like an ordinary assignment. They had no idea this shared endeavor would spark a journey that would shape not only their careers, but their entire lives.

"I worked days, and Mark worked nights in the lab," Dr. Diz recalls fondly. "At first, it was all about the science. But soon, we realized we enjoyed so much more together — good food, arts performances, films, craft fairs. That's where our relationship grew."

The new couple then moved to Ohio where they both launched their careers at the Cleveland Clinic Foundation. Their research on the renin-angiotensin system (RAS), a critical network that plays a key role in regulating blood pressure, has significantly advanced our understanding of how the heart works with other systems in the body.

The AHA played a pivotal role in their story by providing them both with funding support. Early in her career, Dr. Diz received the AHA's Established Investigator Award. That support, she says, was transformative: "The AHA isn't just about funding science; it's about supporting people."

Dr. Diz has paid it forward over the years by mentoring numerous students, many from underrepresented backgrounds. "I didn't have role models who were scientists or doctors when I started out," she explains. "That's why I've made it my mission to open doors for the next generation. One of the things I hope my legacy will be is that I've been able to provide mentorship and programs that expose students to research. It's been meaningful to me over the years, and I take great pride in it."



Photo Courtesy of Drs. Chappell and Diz

The AHA's role in their shared journey is something both Drs. Diz and Chappell hold close to their hearts, as evidenced by their longtime support as Cor Vitae Society members. Dr. Chappell says, "After we retire, we'll still contribute to the AHA because we know firsthand how critical funding is for students and early investigators. It gives them the confidence and experience they need to make an impact not only in their careers, but in science as well."

As they look ahead, they know the work they've done - both through research and mentorship - will continue to change lives for years to come.

"The heart never takes a day off," Dr. Chappell says. "The good thing is, the AHA's ongoing commitment to research means the work will never stop."

"THE BREAKTHROUGHS OF THE FUTURE WILL COME FROM THE PEOPLE WE SUPPORT TODAY."

- Dr. Mark Chappell
Member, Cor Vitae Society

Bold Heart. Bold Life. Bold Legacy.

Dr. Ralph Sacco, the first neurologist to serve as president of the American Heart Association and American Stroke Association, passed away in early 2023, however the legacy he built lives on every single day. Sacco, a distinguished AHA/ASA volunteer and a revered scientist, served as editor-in-chief of the journal *Stroke* in addition to other leadership roles. The late Dr. Sacco dedicated his life to a mission he held close to his heart: improving brain health and preventing strokes. He not only broke new ground, but also forged a path for future generations.

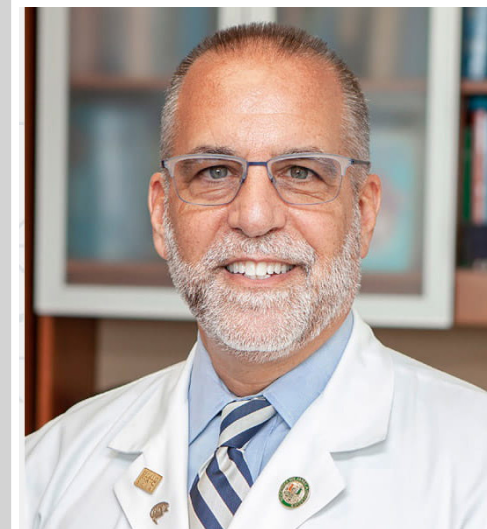
Even in his final days, Dr. Sacco was determined to ensure his life's work would continue. Diagnosed with an aggressive brain tumor in 2021, he knew his time was limited. But instead of stepping back, he pushed forward with a fierce commitment to the causes he championed. He began planning for a future he knew he wouldn't see, ensuring that his passion for saving lives would carry on.

"He became very organized about his estate planning," recalled Dr. Mitchell Elkind, one of Sacco's proteges. "Then he went back to work. People told him to stop working, travel the world. He said, 'This is who I am, this is what's important to me.'"

Dr. Sacco included the AHA in his estate plans, directing his funds specifically toward groundbreaking research in brain health and stroke prevention. He named the AHA as a beneficiary of several accounts and included the organization in his trust. Through these gifts, he extended his impact beyond his lifetime, ensuring that future generations would continue to benefit from the discoveries and advances his work helped to make possible.

Dr. Sacco's legacy shows how one's dedication can transform countless lives. His generosity continues to fuel research, foster innovation, and inspire others to find their own ways to make a lasting difference. Nancy Brown, AHA's CEO, said, "We will continue to honor his memory through the work we do to champion health equity and longer, healthier lives for all people."

"I've had a good life. I've done everything I've wanted to do," he told Nancy the last time they met. "I hope what's happened to me reminds people that you cannot take any day for granted." Dr. Sacco's story is far from over. It lives on in every stroke prevented, every life saved, and every researcher inspired to carry his mission forward. His life's work didn't end—it's still unfolding, leaving a legacy that will last for generations to come.



The Sacco Scholars Program is a brain health scholarship program that was created in honor of Ralph L. Sacco, MD, MS, FAAN, FAHA. The program is a joint effort between the American Academy of Neurology (AAN) and the American Heart Association.

- The program's goals are to:**
- Support early-career researchers
 - Continue Dr. Sacco's legacy of mentorship and research
 - Provide opportunities for young researchers to launch and continue their work in brain health science





American
Heart
Association®

National Center
7272 Greenville Avenue
Dallas, TX 75231

Set yourself up for success with these heart-healthy tips for the new year!

-  **Start small:** Set yourself up for success by gradually adding in a healthy habit. Look for opportunities to make a healthy swap during at least one meal each day for a week or try to walk for five minutes instead of scrolling through social media as a break between meetings or tasks.
-  **Think lean when it comes to protein:** Plant proteins like nuts and legumes, fish or seafood, low fat or non-fat dairy and lean cuts of meat are the best bet when picking protein. Research shows that replacing red and processed meat with other protein sources is associated with lower death rates from cardiovascular disease.
-  **Keep moving:** Balance food and calorie intake with physical activity to maintain a healthy weight. Take a walk after a meal or play fetch with your pet.
-  **Reduce stress:** Chronic stress can keep you from feeling your best, so incorporate scientifically-proven stress relief activities each day like meditation, physical activity or spending time with your pet.
-  **Make a plan:** Take a few minutes each week to write out a list of meal ideas and grocery needs and you'll be less likely to make impulse purchases. The American Heart Association's Heart-Check mark has a list of certified heart-healthy foods if you need inspiration.

Learn more about living heart-healthy year-round at heart.org/healthyliving