



AHA RESEARCH IN FOCUS, FY 2023-2024

American Heart Association Research Operations ushers in our Second Century of Science, while maintaining the organization's commitment to support mission-critical topics and investigator-initiated research excellence.

Boldly Funding Critical Research to Transform Lives

Topic Focused Research Programs

♥ AHA Strategically Focused Research Network on Inflammation in Cardiac and Neurovascular Disease



While our understanding of the role inflammation plays in cardiac and brain dysfunction has grown considerably in recent years, significant knowledge gaps remain that preclude improved recognition and treatment of these conditions. These include diagnostic capabilities and clinical trials to assess outcomes for distinct types and/or stages of inflammatory conditions. Awardee teams in [this network](#) are at Northwestern University Chicago Campus, the University of Michigan, and the University of Pittsburgh.

♥ Health Care by Food Initiative

With anchor support from The Rockefeller Foundation, contributions from inaugural collaborator Kroger, and with additional support from Instacart, Kaiser Permanente and the Walmart Foundation, the American Heart Association's [Health Care by Food™](#) initiative is building the evidence needed to show clinical and cost effectiveness so patients with acute or chronic disease or with risk factors for disease can access cost-effective food is medicine programs as a covered benefit through public and private health insurance. The initiative's research efforts were announced in January 2024, with funds awarded to [foundational research projects](#) across the country led by experts in the food and nutrition, behavioral science, epidemiology and cardiovascular research fields.

♥ Health Equity Research Network (HERN) on Community-Driven Research Approaches

The AHA and the Robert Wood Johnson Foundation launched an innovative \$20 million award to bring together teams of scientists and community leaders. They will work collaboratively on projects to empower the very people who are most impacted by health disparities to develop solutions to improve their overall health and well-being. A team from the University of Texas Health Science Center-San Antonio will serve as the community engagement resource center for the network. The awarded collaborations are:



- University of California San Diego and YMCA of San Diego County
- Yale University SEICHE Center for Health and Justice, JustLeadershipUSA, and North Carolina Department of Corrections
- Furman University and LiveWell Greenville

♥ **The Ralph L. Sacco Scholars Program in Brain Health**

Jointly funded by American Academy of Neurology and American Heart Association

Supported by a generous bequest from Dr. Sacco, the inaugural funding year supported postdoctoral fellowships to support work focused on how to maintain a healthy brain over a person's lifetime.

AHA Programs to Support Diversity in the Biomedical Workforce

♥ **Research Supplement to Promote Diversity in Science**

Aligned with AHA's commitment to addressing inequities, the AHA [Research Supplement to Promote Diversity in Science](#) is a mechanism for AHA grant holders to support fellows from under-represented groups in science. In its first four years, the program supported 103 trainees with a total of more than \$10 million.

♥ **2023-24 AHA/AMFDP Scholars**

The AHA funds researchers through the Harold Amos Medical Faculty Development Program of The Robert Wood Johnson Foundation to support scholars with academic and research appointments in cardiology and stroke who come from historically disadvantaged backgrounds. Awardees commit to developing careers in academic medicine and serving as role models for students and faculty of similar backgrounds.



Gmerice Hammond, MD, MPH, Washington University

Impact of the Accountable Care Organization Realizing Equity, Access, and Community Health (ACO REACH) Program on Racial Inequities in Heart Failure

Heart failure is emblematic of alarming trends in U.S. health care: poor quality outcomes, ballooning costs and staggering racial health inequities. To address quality and costs, in 2011 alternative payment models (APM) and value-based payments were introduced to hold providers accountable. Whether these policies impact equity has gone largely unstudied. The Accountable Care Organization Realizing Equity, Access, and Community Health (ACO REACH) model is the first APM to integrate equity into the metrics of a health system's performance. This is an important first step for policy to prioritize and measure equity in health systems. If equity is improved under this program, examining how this was accomplished could yield valuable insights. If it is worsened, it is important to identify this as policy makers determine whether discontinuation or reform is warranted.



Alan H. Baik, MD, University of California, San Francisco

Investigating SREBP1 as an Evolutionarily Conserved Chronic Hypoxia Sensor

In patients with cardiopulmonary diseases such as severe chronic obstructive pulmonary disease or advanced heart failure, chronic hypoxia is associated with increased morbidity and mortality. Little is known about how cells and tissues sense and adapt to chronic hypoxia. Dr. Baik's goal is to acquire the robust knowledge and technical expertise he needs to uncover the mechanisms of oxygen sensing and adaptation in mammals, which will open new therapeutic avenues to alleviate the impact of cardiovascular disease and pathological hypoxia. This award will also lay the foundation for his career as an independent physician-scientist.

♥ **Robert A. Winn Clinical Investigator Leadership Award in Cardiovascular Research Scholars**

The American Heart Association, with support from the Bristol Myers Squibb Foundation, has selected two early-career scientists for the Robert A. Winn Clinical Investigator Leadership Award in Cardiovascular Research. The award offers three years of career and leadership development designed to encourage diversity in cardiovascular clinical research. The goal is to prepare them to succeed as independent clinical researchers, team members and leaders as they conduct successful diverse clinical trials in the future.



Kanwal M. Farooqi, M.D., is an associate professor of pediatrics at Columbia University Irving Medical Center in New York City. Dr. Farooqi's research interest is identifying and treating congenital heart disease (CHD), particularly among young people from underrepresented populations. Her current focus is on how 3-D printed cardiac modeling can improve understanding about CHDs and provide a hands-on guide to help doctors and patients make treatment decisions.



Michelle Ogunwole, M.D., Ph.D., is an assistant professor of medicine at Johns Hopkins University School of Medicine in Baltimore. Her research is on developing and testing postpartum interventions that provide systems change to support healthy lifestyles for Black women with metabolically complicated pregnancies. She is conducting a study exploring structural racism's role in the food environment of Black postpartum women, using geospatial analysis to make connections between food systems that produce and reinforce inequities and obesity-related pregnancy complications such as gestational diabetes.

♥ **Supporting Undergraduate Research Experiences (SURE Scholars)**

The AHA SURE program serves as a model for building multi-institutional relationships to provide research experiences that overcome institutional barriers and support students' interests, commitment, and ability to persist in science, technology, engineering, and math fields. The program supported 132 students with more than \$1 million over the past four summers with innovative ways to work around pandemic limitations.

AHA's Second Century of Science Awards

To support the AHA's 100-year anniversary, two novel programs to address critical gaps in the health and well-being that debuted last year were offered again in 2023-24.

♥ **AHA's Second Century Early Faculty Independence Award**

\$14 million of funding is supporting 46 highly promising beginning investigators who are addressing critical, emerging scientific priorities.

♥ **AHA's Second Century Clinical Fellow Research Education Program**

To foster research opportunities, and optimal implementation of practice guidelines for clinical fellows, this program is enabling cardiology and select neurology fellows to attend AHA's Scientific Sessions or International Stroke Conference. The fellows will gain training and experience integral to development of research acumen. \$1 million was awarded to 30 program directors who will each support up to five clinical fellows per year for the next three years.

A Tradition of Research Excellence & Ambassadorship

Three new AHA Merit Awards join a group of distinguished researchers who have received this award since 2016. The [Merit Award](#) funds exceptional established scientists with who propose novel approaches to major cardiovascular and cerebrovascular disease research challenges that can produce unusually high impact. Awardees must also have a history of AHA ambassadorship.



Joseph Loscalzo, M.D., Ph.D., FAHA - *Food-inspired Cardiovascular Therapeutics*

Distinguished Hersey Professor of the Theory and Practice of Medicine
Samuel A. Levine Professor of Medicine
Harvard Medical School

Former Chairman of the Department of Medicine and Physician-in-Chief Emeritus
Brigham and Women's Hospital in Boston



Daniel J. Rader, M.D., FAHA - *Toward molecular understanding of novel genes and pathways linking lipid metabolism and cardiovascular diseases*

Seymour Gray Professor of Molecular Medicine
Chairman, Department of Genetics
University of Pennsylvania Perelman School of Medicine

Chief of the Divisions of Human Genetics at Penn Medicine and the Children's
Hospital of Philadelphia



Philip S. Tsao, Ph.D., FAHA - *Nicotine induced gene-environment interactions in AAA disease*

Professor of Medicine in Cardiovascular Medicine
Stanford University School of Medicine

For more information about AHA's research program,
visit <https://www.professional.heart.org/research>