

A Relentless Force for Supporting Investigators

The AHA offers a portfolio of research awards to meet the needs of the modern science community, respond to the current scientific landscape, and focus on the AHA's mission and strategic goals. In addition to funding the basic science ideas of individual researchers, AHA also offers innovative, novel program models:

Continued Focus on the Next Generation of Investigators

One research priority is to support investigators at the start of their careers, ensuring a continuous supply of researchers. AHA volunteer leaders hold at the core a commitment to programs that support trainees and early-career investigators. Support of beginning investigators represented 68% of unrestricted award funds in FY 2018-19.

2019 AHA Merit Awardees

Introduced in 2016, the highly competitive AHA Merit Award funds individuals who have the potential to transform and advance the future of cardiovascular and/or cerebrovascular disciplines that support the mission and strategic values of the AHA. A major component of this award is demonstrated AHA ambassadorship throughout one's career. Each award detailed below secured a commitment of \$1 million over five years.



Dianna Milewicz, M.D., Ph.D.
 President George H.W. Bush Chair of Cardiovascular Medicine
 Director, Division of Medical Genetics and
 Vice-Chair, Department of Internal Medicine
 Univ. of Texas Health Science Center at Houston (UTHealth)
 McGovern Medical School

Dr. Milewicz's work aims to understand the development of Moyamoya Disease (MMD), a genetic cause of strokes in children. Findings from this study have the potential to improve the prevention and treatment of strokes in patients of all ages.



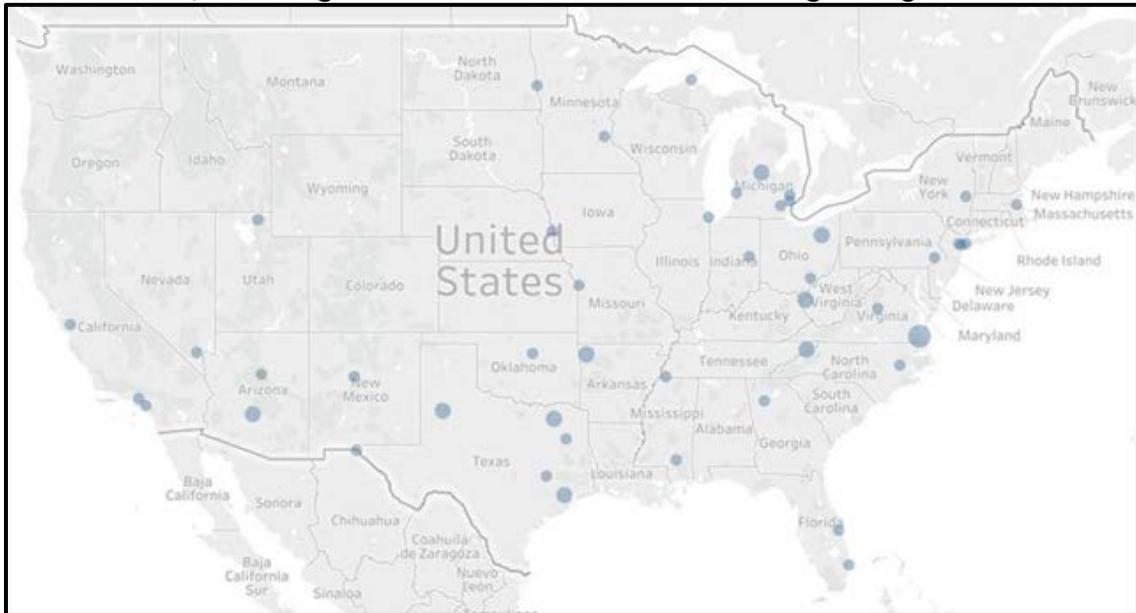
Jeff Molkentin, Ph.D.
 Professor, Department of Pediatrics
 Cincinnati Children's Hospital Medical Center
 Howard Hughes Investigator

Dr. Molkentin is studying the fundamental biology of heart regeneration. He is attempting to grow heart tissue by genetically reprogramming the type of heart cell that makes it beat. This could lead to a completely new treatment for heart failure caused by damage from heart attack.

AHA Institutional Research Enhancement Awards (AIREA) ensure funding opportunities for independent investigators at less research-intensive institutions.

- 31 awards were given in 2018-19, totaling nearly \$ 4.8 million.
- With 84 applications to this program, this year’s funding success rate was 37%.

AIREA Awards, as of August 2019 – 58 active awards totaling nearly \$8.9 million



Awards are currently being conducted at the following institutions. Those with more than one award are indicated.

Institution	# of Awards	Institution	# of Awards
Albany College of Pharmacy		San Jose State Univ. Research Foundation	
Ball State Univ.		St. John's Univ.	
Baruch College		Texas A&M Univ., College Station	
Central Michigan Univ.	2	Texas A&M Univ., Commerce	2
Chapman Univ.		Texas Tech Univ., Lubbock	2
East Carolina Univ.		Univ. of Akron	
East Tennessee State Univ., Johnson City	2	Univ. of Arizona, Phoenix	2
Eastern Virginia Medical School, Norfolk	4	Univ. of Arkansas, Fayetteville	2
Florida Atlantic Univ.		Univ. of Houston	2
Florida Institute of Technology, Melbourne		Univ. of Massachusetts, Boston	2
Hope College		Univ. of Memphis	
Illinois Institute of Technology, Chicago		Univ. of Michigan, Dearborn	
Kennesaw State Univ.		Univ. of Minnesota, College of Veterinary Science	
Lawrence Technological Univ.		Univ. of Missouri, Kansas City	
Marshall Univ. Research Corp	2	Univ. of Nebraska at Omaha	
Michigan Technological Univ., Houghton		Univ. of New Mexico Health Sciences Center, School of Pharmacy	
New Jersey Institute of Technology		Univ. of Southern Mississippi	
New Mexico Highlands Univ.		Univ. of Texas, El Paso	
North Dakota State Univ., Fargo		Univ. of Texas, Tyler	
Northern Arizona Univ.		Univ. of Virginia – Dept of Acute and Specialty Care	
Oakland Univ.		Ursinus College	
Occidental College, Los Angeles		Utah State Univ.	
Ohio Univ., Athens			
Oklahoma State Univ.			

Serving Underrepresented Ethnic Groups in Science

AHA/AMFDP Scholars

A partnership between the American Heart Association and *Harold Amos Medical Faculty Development Program of The Robert Wood Johnson Foundation* addresses the shortage of scholars with academic and research appointments in cardiology and stroke who come from historically disadvantaged backgrounds. Awardees are committed to developing careers in academic medicine and to serving as role models for students and faculty of similar backgrounds. The 2018-19 awardees are:



Kevin Alexander, M.D., Stanford Univ.

Over a million African Americans in the United States carry the V122I transthyretin mutation, which significantly increases the risk of developing heart failure. Dr. Alexander hopes his work will lead to new drugs to treat this disorder and to identifying biomarkers to diagnose the disease. These advances might also provide insights into other diseases, such as Alzheimer's and Parkinson's.



LaPrincess Brewer, M.D., M.P.H., Mayo Clinic

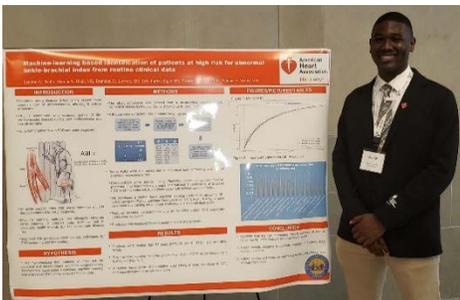
The AHA's Life's Simple 7 (LS7) is a science-based measure of seven health-promoting behaviors and risk factors (e.g., physical activity, diet, blood pressure). African Americans have 82% lower odds than Caucasians of meeting ideal levels of the AHA's LS7. Dr. Brewer is developing culturally tailored, mobile technology-assisted health promotion that can be used in doctors' offices and clinics. Her goal is to create a model for the AHA and medical institutions to provide health information targeted to racial/ethnic minority communities.



James Sawalla Guseh, M.D., Massachusetts General Hospital

Increased heart size (cardiac hypertrophy) commonly leads to heart failure. Even partially decreasing hypertrophy improves outcomes. Dr. Guseh seeks the most effective methods by which to shrink enlarging hearts.

SURE: Summer Undergraduate Research Experiences provides Internships for College Students from Underrepresented Racial and Ethnic Groups



Lyndon George Rolle is one of the first 15 summer SURE Scholars.

In 2017, the AHA commissioned the RAND Corporation to explore program options to inspire and support the careers of underrepresented students in science and research. As a result, this year the AHA created the Summer Undergraduate Research Experience (SURE) and launched a pilot class of 15 students who worked in AHA awardees' labs in summer 2019. In addition to these summer interns, we are funding an expansion of student scholars recruited by the AHA Southeast region to gain research experience in laboratories during the academic school year.



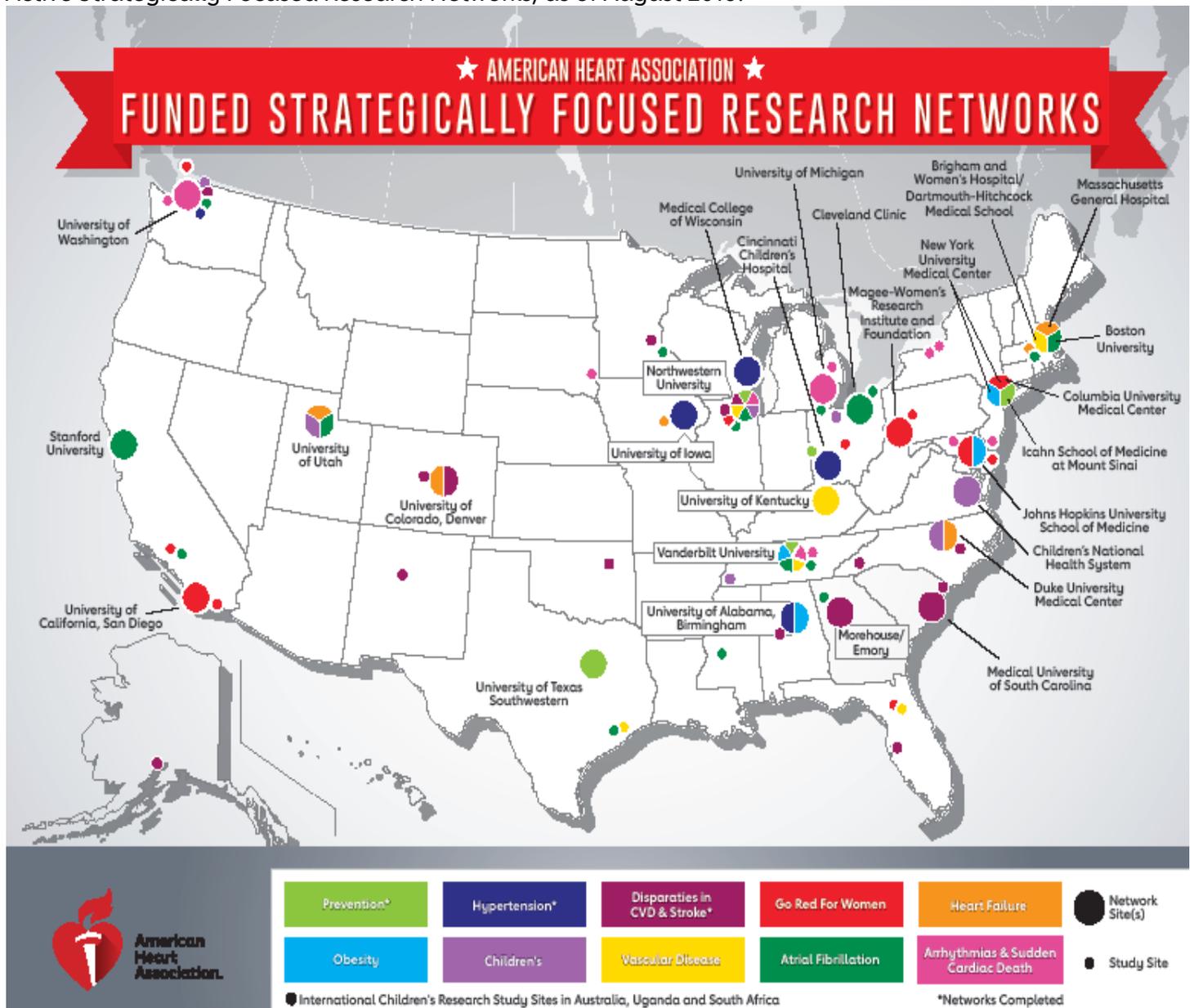
The AHA Southeast Region SURE Scholars gathered for a 2019 symposium.

Strategic Research Topics

Funding strategic research topics helps drive the AHA to achieve its 2020 goals. For example, AHA Strategically Focused Research Networks (SFRNs) focus on the causes, prevention and treatment of cardiovascular disease or stroke in specific topics, selected by AHA science leadership. The AHA is currently funding nine research networks. Two networks are added each year.

- \$165 million has been allocated to SFRNs to date.
- In 2018-19, a new network was funded around sudden cardiac death research.

Active Strategically Focused Research Networks, as of August 2019:



AHA Co-funded Research

The Association is committed to identifying and supporting specific science areas deemed critical to achieving our mission and strategic objectives. We also co-fund awards with various organizations to support focused research programs that advance mutual goals. Co-funded opportunities of note:



The AHA/CHF Congenital Heart Defect Research Awards will commit \$22.5 million to investigators who are actively conducting basic, clinical, population or translational congenital heart defects (CHD) research.



The AHA and the Allen Frontiers Group, together with additional contributors, including the Oskar Fischer Project and Henrietta B. and Frederick H. Bugher Foundation, have committed over \$43 million to disrupt the incremental trajectory of brain health science and open new frontiers of discovery.



Enduring Hearts is working with the AHA to co-fund awards for research specific to pediatric heart transplantation. A new initiative in 2020 will commit \$3 million to co-fund new Collaborative Sciences Awards.

Supporting Women Scientists and Research on Women's Risk & Outcomes

Removing Gender Biased Language and Raising Awareness of Inequity

This year, proposals from women accounted for 38.2% of applications and 39.7% of awards*. This success rate is good news. However, it is tempered by lower application volume from females, particularly to programs geared toward more senior investigators.

[*Gender was not reported for 2.2% of applicants and 1.3% of awardees.]

In addition to continuing to encourage women to apply for funding, AHA added greater flexibility to the administration of awards to accommodate work-life balance. AHA science leaders edited application and evaluation materials to remove gender-biased language and to raise awareness of possible inequities in women's salaries and training opportunities.

Research Goes Red: Fostering Research on Women's Cardiovascular Health

Cardiovascular disease claims the lives of 1 in 3 women, punctuating the need to understand women's risk and outcomes. The AHA's Institute for Precision Cardiovascular Medicine has partnered with Verily (formerly Google Life Sciences) to develop Research Goes Red, which empowers women to contribute to health research. Engagement with this platform is exceeding expectations, and it is becoming an exceptional resource for research on women's cardiovascular health. This collaboration unites American Heart Association heart health experts, patients, loved ones, and Verily, with its leading tools and technologies, to truly make a difference.

For more information about AHA's research program,
please visit [Heart.org/Research](https://www.heart.org/research)