



AHA RESEARCH IN FOCUS FY 2021-2022

A RELENTLESS FORCE FOR ADDRESSING CRITICAL ISSUES

This year, AHA Research Operations continued to focus on structural racism and health disparities and understanding the implications of COVID-19

New Projects Added to \$100M Research Commitment to Address Structural Racism & Health Disparities

In November 2020, an [AHA Presidential Advisory](#) called for action across the association to address structural racism and health disparities. The AHA's research portfolio is having an impact with a \$100 million commitment through 2025 to support investigators who identify as female and researchers from underrepresented racial and ethnic groups in science, and on new research initiatives focused on health equity and structural racism. The commitment was exceeded this year with three additional strategically focused award programs and commitments to expanding the research pipeline. More new initiatives will continue into the future.

Strategically Focused Research Programs

AHA Strategically Focused Research Network on the Science of Diversity in Clinical Trials

Research teams will work collaboratively to identify solutions underlying the inequitable participation of diverse individuals in clinical research and the associated health inequities it creates. Awardees of this [SFRN on the Science of Diversity in Clinical Trials](#) are from Stanford University School of Medicine, Morehouse School of Medicine, University of California-Los Angeles, University of Hawaii, Washington State University, University of Pennsylvania, Emory University, Grady Health Systems (Atlanta), MedStar Washington Hospital Center (Washington, D.C.), University of Southern California's Alzheimer's Therapeutic Research Institute and USC's Schaeffer Center for Health Policy & Economics, and Howard University. Their work will help the AHA achieve its 2024 Impact Goal to advance cardiovascular health for all, including identifying and removing barriers to health care access and quality.

Health Equity Research Network on Disparities in Maternal-Infant Health Outcomes

Teams of researchers received AHA grants to significantly advance our understanding of the factors underlying the disproportionate impact of maternal mortality and morbidity on Black women, Native American women, and those living in rural areas. Heart and vascular issues account for about half of these deaths, uniquely positioning the AHA to address this critical issue. This [Health Equity Research Network \(HERN\) on Disparities in Maternal-Infant Health Outcomes](#) is part of the American Heart Association's multi-pronged unprecedented pledge to aggressively address social determinants of health while working to improve health equity for all communities. Awardee teams from Northwestern University, The Ohio State University, University of Alabama at Birmingham, University of North Carolina at Chapel Hill, North Carolina Agricultural and Technical State University, and University of Pennsylvania will lead the community engaged research projects. A separate team at the University of Alabama at Birmingham will serve as the coordinating center for the network to help train the next generation of maternal health equity researchers, providing consultation and guidance, compiling data reports, and coordinating the administration of the initiative.

The Role of Health-related Social Needs and Interventions in Hypertension for Women at Risk
 This [funding](#) is for research focused on populations with greater risk of hypertension-related health outcomes including, but not limited to, young Black and/or Hispanic women. The awarded projects must leverage the AHA's [Research Goes Red](#) platform to recruit participants into their studies and collect data. The awards are funded through the AHA Institute for Precision Cardiovascular Medicine.

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 two years, the program supported 36 trainees with a total of \$3.8 million.

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 43 students over the past two summers with innovative ways to work around pandemic limitations.

2021-22 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.



Olurotimi Mesubi, M.B.B.S., *Johns Hopkins University School of Medicine*

The Role of O-GlcNAcylation in Atrial Fibrillation - This study is about the most common abnormal heart rhythm problem for which people seek medical care: a fast and chaotic heart rhythm in which the heart is not beating in sync. It causes poor health and bad outcomes such as stroke and failure of the heart to work properly. High blood sugar levels make people more likely to have this abnormal heart rhythm. It is unclear why. We recently found that a change in heart cells in which sugar molecules are added to proteins may give a clue as to how this happens. We hope to learn more about how this works, leading to new treatments for this abnormal heart rhythm.



Utibe Essien, M.D., *Veterans Health Foundation of Pittsburgh*

A Multilevel Intervention to Reduce Anticoagulant Disparities in Atrial Fibrillation (MIRACLE-AF) - Atrial fibrillation is a common heart disease that affects many Veterans and causes strokes and death. This is especially seen in Black patients. It is important for patients to get the right medicines to help treat this heart condition. We found that Veterans are treated differently based on their race and ethnicity. To find out why some people get the medications they need while others do not, we will survey patients, doctors, and hospital leaders from around the nation to get the best ideas to address common problems, so all patients can get the medicines they need. By fixing the most common issues, we hope all patients all receive the medicines they need to treat their heart disease.

Continuing to Understand the Effects of COVID-19

AHA Invests More than \$10M to Fund 11 Research Teams Investigating Long-term Impacts of COVID-19 on Heart and Brain Health

The Association continues to build the body of science related to the impact of COVID-19 as the worldwide pandemic moves into its third year. The AHA reports that 10% to 30% of people who have COVID-19 experience lingering effects of the virus well beyond the initial 2-to-3 weeks expected recovery, a condition known as Long COVID. Many short- and long-term complications of COVID-19 affect the heart and the brain and are contributing to an increase in cardiovascular disease in ways we do not fully understand. The 11 new research [projects](#) are underway as of April 1, 2022.



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