



## AHA RESEARCH IN FOCUS FY 2020-2021

### A RELENTLESS FORCE FOR ADDRESSING CRITICAL ISSUES

#### **\$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. One way we can impact this area is through our research portfolio: The organization is committing \$100 million over the next five years to new research initiatives focused on health equity and structural racism.

- The AHA Research Committee formed a **Working Group on Diversity and Inclusion** to make data driven recommendations for increasing the number of underrepresented racial and ethnic groups and women in science. The AHA will pursue opportunities to secure a more diverse population of research applicants and, ultimately, awardees.
- In 2021, 68% of AHA volunteer peer reviewers participated in **unconscious bias training** sessions.
- **Women** comprise 51% of volunteer Research leadership volunteer committees and 47% of peer reviewers who evaluate proposals for funding (based on those reporting their gender).
- Over 26% of the AHA's FY21 **Research funding** was related to Structural Racism and Health Equity and Inclusion
- The AHA will expand STEM programs and our collaborations with [historically Black colleges and universities \(HBCUs\)](#) and other universities to grow research **opportunities for undergraduates**.
- The AHA consistently works to increase the number of **proposals and awards** from women and investigators from underrepresented racial and ethnic groups.

Over the past five years, the AHA has awarded:

- \$72 million to investigators from underrepresented racial and ethnic groups. This accounted for 10% of research award funds.
- \$268 million, or 36% of research funds, to female investigators.

#### **AHA Establishes \$20M Health Equity Research Network on Prevention of Hypertension**

Teams from Beth Israel Deaconess Medical Center, Johns Hopkins University School of Nursing, NYU Grossman School of Medicine, University of Alabama at Birmingham and Wayne State University have received AHA research grants to lead community-engaged research projects to study high blood pressure prevention in underrepresented populations. The studies will involve three additional sites in Black communities across the country. This [Health Equity Research Network \(HERN\) on the Prevention of Hypertension](#) 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.

Collectively, the projects are named the RESTORE (Addressing Social Determinants TO prevent hypertension) Network. A team from NYU Grossman School of Medicine in New York, led by Gbenga Ogedegbe, M.D., M.P.H., director of the Institute for Excellence in Health Equity, will serve as the coordinating center. Project overviews and progress can be found on the [AHA HERN on Prevention of Hypertension](#) web page. The AHA looks forward to the network's findings, which are anticipated to include sustainable and scalable approaches to preventing hypertension in at-risk communities.



## 2020-21 AHA/AMFDP Scholars

A partnership between the AHA and Harold Amos Medical Faculty Development Program of The Robert Wood Johnson Foundation supports 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.



Daniel Addison, M.D., *The Ohio State University*

Defining and Preventing Novel Cancer Therapy-associated Cardiotoxicity - This project aims to find early markers of impending heart problems in blood cancer patients starting new widely used cancer therapies. We will study the role of cutting-edge tools such as advanced heart imaging, to find patients who are likely to have heart problems during treatment.



Edilberto Amorim de Cerqueira, M.D., *University of California at San Francisco*

Cytotoxic Brain Edema Physiology in Hypoxic-Ischemic Brain Injury - Brain swelling from poor blood flow to the brain is the most common cause of death for patients in intensive care after cardiac arrest. While 60% of survivors have brain swelling, there is no current treatment to prevent it. Brain swelling can only be seen with imaging tests, after most of the brain damage is done. Dr. Amorim will use a non-invasive test that measures brain waves to predict which patients are at highest risk for brain swelling early on and monitor brain swelling risk in real time. He will also test raising patients' blood pressure to increase blood flow and prevent brain swelling.

## Research Supplement to Promote Diversity in Science

Aligned with AHA's commitment to addressing inequities, the AHA launched a new [supplement](#) mechanism for qualifying AHA grant holders to support fellows from under-represented groups in science. The program is funding 16 under-represented trainees and slated to be offered again in 2022 and beyond.

## More than \$11 Million Awarded for Disparities in Cardio-oncology Strategically Focused Research Network

With a growing need to better understand the many links between heart disease and cancer, the two leading causes of death worldwide, four multidisciplinary teams have been selected to form the AHA's newest [Strategically Focused Research Network](#) to address disparities that intersect heart disease and cancer. These teams will develop breakthrough solutions to better identify and address how the combination of these diseases disproportionately affects underrepresented populations.

- Augusta University: Under the direction of Dr. Neil Weintraub, the center will assess Obesity-Related Disparities in the Bidirectional Risk of Cardiovascular Disease and Cancer.
- Boston University School of Medicine: This center will assess cancer-related thromboembolism in vulnerable populations. Dr. Katya Ravid is the center director.
- Medical College of Wisconsin's center, under the leadership of Dr. Melinda Stolley, will assess Disparities in Cancer Therapy Induced Inflammation and Associated Endothelial Dysfunction.
- University of Pennsylvania: Under the direction of Dr. Bonnie Ky, this center will focus on reducing disparities in communities particularly susceptible to cardiac effects of cancer treatment.

## Coming Back from COVID-19

### Results from COVID-19 Rapid Response Grants

From the earliest reports, COVID-19 was observed to have significant effects on the heart and vasculature, including enhancing the likelihood of stroke. The AHA issued an unprecedented rapid response call for cardiovascular/ cerebrovascular research proposals to address the growing crisis of the COVID-19 pandemic. Because of this issue's urgency, the focus was on innovative, highly impactful short-term proposals that could show progress within 9-12 months.

In spring 2020, the AHA funded [21 COVID-19 Rapid Response Grants totaling \\$2.5 million](#), and the impact is becoming apparent. Results have been submitted and published in a variety of well-respected scientific journals, including AHA's *Circulation Research*.



### Supplemental Funding to Protect Early Career AHA Awardees

As the pandemic continues, its effects pose great challenges for many researchers. AHA and NIH survey data demonstrated particular impact on the progress of early career investigators' research. To help protect the continuum of researchers, the AHA Research Committee committed \$2.9 million in supplemental funding to 75 early career investigators whose AHA research projects were originally scheduled to end between December 2020 and December 2021. Each awardee is receiving six months of additional funding and has been given a one-year extension to complete their ongoing AHA-funded projects to keep their science and their careers moving forward.

### Driving Quality Improvement and Research in the COVID-19 Era

In April 2020, the American Heart Association launched a new registry for hospitals and health systems caring for COVID-19 patients. [The American Heart Association COVID-19 CVD Registry powered by Get With The Guidelines®](#) (GWTG) is built on 20 years of successful hospital quality improvement efforts. More than 180 participating hospitals have input over 52,000 COVID-19 patient records in 33 states. The no-cost registry is helping the medical community by providing aggregated, de-identified data to researchers through the Association's [Institute for Precision Cardiovascular Medicine](#). Already more than 40 projects are underway or completed. These have uncovered with important findings that have been published for physicians to consider when treating patients and for scientists to build upon.



American Heart Association.  
**COVID-19 CVD Registry™**  
 Powered by Get With The Guidelines®

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