Why fund cardiovascular research? The American Heart Association has funded more than $3.8 billion in research since 1949, leading to life-saving scientific developments, including the first implanted pacemaker, the advancement of CPR, and discoveries in gene targeting. From 2003 to 2013, the death rate from heart disease fell nearly 38 percent while the death rate from stroke fell 34 percent. Your efforts are making an impact, but the fight is far from over.

Cardiovascular disease is still the No. 1 cause of death worldwide. Someone in the U.S. dies from heart disease about every 84 seconds. Stroke kills someone in the U.S. about every four minutes. Contributing factors such as obesity and high blood pressure continue to plague Americans. About 69 percent of U.S. adults and about 32 percent of U.S. children are overweight or obese. Hypertension, a key risk factor, is projected to increase about 8 percent between 2013 and 2030.

Your donations are critical in helping the AHA meet our 2020 impact goal to improve the health of all Americans by 20 percent and reduce deaths from cardiovascular disease and stroke by 20 percent by the year 2020. Your contribution could help fund the next scientific breakthrough that might be the key to ending these deadly diseases. Life is Why.

HIGH PROFILE RESEARCH IN THE WESTERN STATES AFFILIATE

**Xue-Qiao Zhao, M.D.,** Cardiology Director of the Clinical Atherosclerosis Research Lab at the University of Washington, is the recipient of a $159,668 grant for her study of good cholesterol’s (HDL) role in treating people who have hardening of the arteries.

This study will investigate whether people with hardening of the arteries who continue to have heart attacks or strokes despite their current aggressive treatment guidelines can benefit from a new or more aggressive treatment.

**Stavros G. Drakos, M.D., Ph.D.,** Associate Professor of Medicine and Medical Director of the Cardiac Mechanical Support Program at the University of Utah is the recipient of a $160,000 award to discover which molecules will indicate a heart that is able to recover damaged cells when placed inside a heart assist device.

The widely held view is that the human heart is incapable of recovering from chronic disease or severe injury. This study hopes to overturn this view by trying to determine the extent to which failing human hearts recover during the time they are attached to heart assist devices. Scientists will analyze heart tissues collected from patients prior to cardiac assist device implantation and again when the cardiac assist device is removed.

**Nancy Sweitzer, M.D., Ph.D.,** Director of the Sarver Heart Center and Chief of the Division of Cardiology at the University of Arizona, is the recipient of a $160,000 grant for her large-scale study to find measurable physiological indicators that help predict the difference between patients who are more likely to survive heart failure and those who are not.

Heart failure is a syndrome of shortness of breath and fatigue, typically due to buildup of fluid in the lungs and insufficient pumping of blood to the body. Heart failure without any apparent weakness of the heart muscle affects predominantly older persons and women disproportionately with prevalence increasing due to an aging population over the next several decades. By comparing blood proteins from people who die or are hospitalized to those of healthier patients, researchers hope to determine why some people do poorly and others do well, leading to new treatment possibilities for heart failure.
The American Heart Association’s Go Red For Women Research Network recently named The University of California, San Diego, as one of five research centers focused on preventing, treating and beating heart disease in women. At UC San Diego, the team will add to the growing evidence of the relationship between sedentary behavior and cardiovascular risk factors for Latina women, who face a disproportionately high risk of heart disease. The research team hopes to measure how increased inactivity contributes to cardiovascular disease in Latina women and determine if getting Latina woman to be more physically active can lessen the negative accumulated effects. If so, they are also interested determining which activities are the most popular and have the lowest drop-out rate so that they can be recommended to a larger Latina audience.

Matthew Allison, M.D., MPH, UCSD Strategically Focused Women’s Cardiovascular Health Research Center Director

“One of the things we are trying to do with the study is to see what is driving increased sedentary behavior in Mexican American women and that has not been studied to this point. The focus of the clinical science project is to learn whether an intervention to reduce sitting time is effective and whether we can get women to change their behavior. Hopefully we’ll learn whether the changes, if they do occur, are associated with beneficial cardiovascular risk factors like reductions in blood pressure, changes in blood glucose to reduce risk for diabetes.”

Dorothy Sears, Ph.D., Project Principal Investigator

“My project is the basic science project. Our goal is to identify the negative effects of sitting time and how those will change after my colleague, Dr. Kerr, conducts a randomized controlled trial that helps folks reduce their sitting time.”

Jacqueline Kerr, Ph.D., Project Principal Investigator

“I’m hoping that our research will show us that we can successfully reduce sitting time in Latina women and that when we do make these changes that it impacts their health, blood pressure and other cardiovascular implications that my colleague, Dr. Sears, is going to be studying.”

Sheila Casteneda, Ph.D. Project Principal Investigator

“It is always my goal in my research to find things that we can change that are cost effective and in real-time – things that are actually winnable and doable for women and that can actually positively influence their lives. For example, we might find it is easier to tell someone, “Park your car further in the parking lot and walk another 10 minutes” versus “increase your physical activity.” It’s trying to figure out what is more amenable to change.”

INNOVATIVE RESEARCHERS

RESEARCH BY THE NUMBERS

1,548 Number of researchers in WSA submitting funding applications last year.

28 cents of every publicly donated dollar to AHA is channeled into research.

1,100 peer reviewers estimated to evaluate applications each research cycle.

17 new awardees funded by AHA Association with Western States Affiliate.

$8.8 million New WSA funding for 80 cardiovascular and stroke research projects, since January 1, 2016.

Thirteen Scientists funded by the AHA have won Nobel Prizes, including nine for research we wholly or partially supported.