

# American Heart Association Research Program Overview

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## Mission

**Building healthier lives,  
free of cardiovascular diseases and stroke.**

We will have an extraordinary impact on your life by empowering you and your loved ones to save lives, live healthier and enjoy more peace of mind about cardiovascular health.

## Impact Goal

**By 2020 to improve the  
cardiovascular health  
of all Americans  
by 20 percent  
while reducing deaths from  
cardiovascular diseases and stroke  
by 20 percent.**

## 2020 Action Strategies

- ➔ Accelerate Science Discovery**
  - Research Programs
- ➔ Accelerate Science Interpretation**
  - Guidelines Development
  - Volunteer Advisory Groups
- ➔ Accelerate Science Application**
  - State Health Alliances

## 2020 Action Strategies

- ➔ **Accelerate Science Discovery**
  - Research Programs
- ➔ **Accelerate Science Interpretation**
  - Guidelines Development
  - Volunteer Advisory Groups
- ➔ **Accelerate Science Application**
  - State Health Alliances

## Research - AHA Top Priority

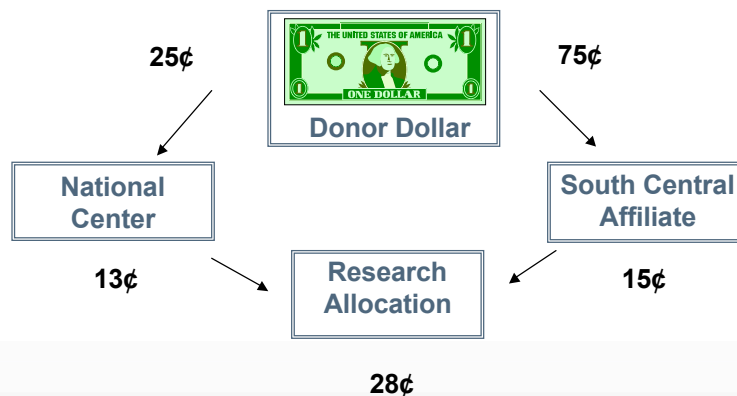


**The AHA believes that learning more about the #1 and #3 killers in America is one of the best ways to accomplish our mission.**

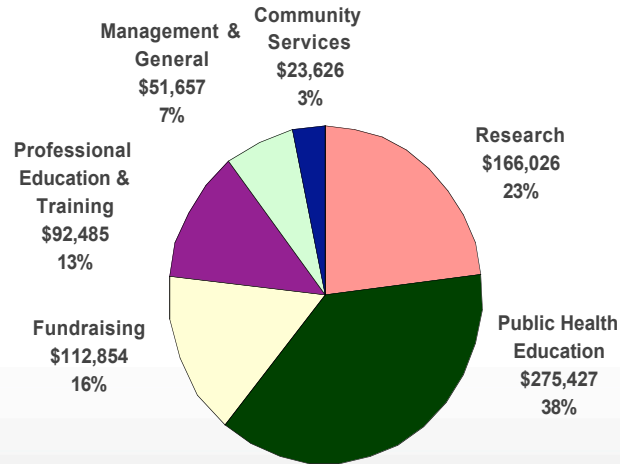
## Research Goals

- Ensure that highly meritorious research and discovery continues, including supporting early career investigators
- Increase the capacity of the research community to generate the highest quality research
- Promote a research infrastructure that expedites the translation of basic, clinical, behavioral and population research into practice

## Publicly Donated Dollar

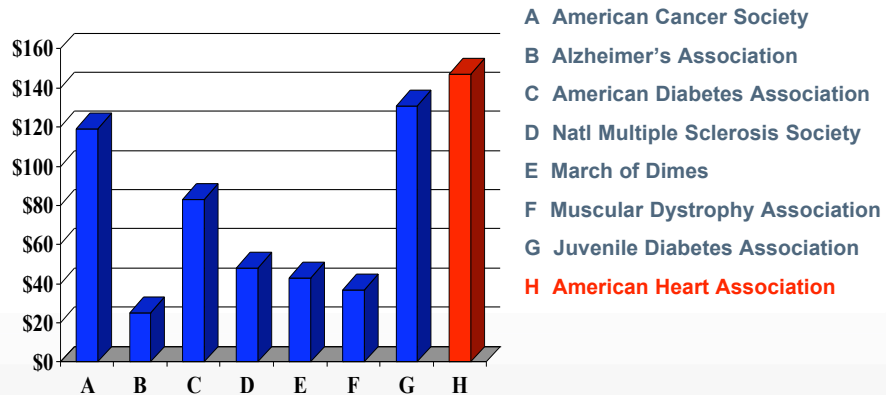


## AHA National Expenses 2007-2008



## Research Expenses

### Major National Health Agencies 2006



## AHA-Funded Breakthroughs

**Our research funding has led to the discovery and development of many treatments and procedures:**

- First artificial heart valve
- Techniques and standards for CPR
- Implantable pacemakers
- Treatment for infant respiratory distress syndrome
- Cholesterol inhibitors
- Drug-coated stents
- Microsurgery
- Links between dietary fat and cholesterol

## Research Advancements

**Funded by the American Heart Association:**

- 1956 – Dr. Ancel Keys links dietary fat with cholesterol.
- 1957 – Dr. William Wierich joined by Drs. Vincent Gott and Walter Lillehei implant the first externally powered pacemaker.
- 1966 – Dr. Maurice Sokolow announces results of his 20-year study showing hypertension can decrease life expectancy.
- 1972 – Dr. Arthur Guyton provides evidence of the overriding dominance of the kidneys in long-term regulation of blood pressure and in hypertension.
- 1985 - Dr. Joseph Goldstein and Dr. Michael Brown provide new insights into the ways fatty cholesterol enters body cells and why cholesterol levels may become too high.
- 1992 – Dr. Edwin Krebs joined by Dr. Edmond Fischer discover how proteins are switched to perform functions within the cells.
- 1998 – Dr. Andrew Marks develops a method to reduce re-blocking of the arteries after angioplasty.

## National Research Statistics

- AHA has spent > \$3.1 billion on research since 1949
- AHA spent almost \$168 million on research FY2008
- AHA's administrative costs represents only 3.9%
- Currently funds about 2,500 scientists in US
- AHA is 2nd only to NHLBI in funding heart research
- AHA has funded the winners of 9 Nobel Prizes
- About 75% of the AHA's award dollars support research career development – helping the scientists of tomorrow

## Advocate for NIH Funding

- AHA advocates each year to increase research funding for the National Institute of Health, economically impacting our states.
- As of July 2009, NIH funds \$1.6 billion in SCA:

Arkansas	\$ 78,398,266
New Mexico	\$ 131,684,305
Oklahoma	\$ 97,021,647
<u>Texas</u>	<u>\$1,283,792,023</u>
<b>SCA Total</b>	<b>\$1,590,896,241</b>

## SCA Research Statistics

- AHA currently funds \$42.7 million in research in SCA
- AHA currently funds 217 researchers in 32 institutions in 16 cities
- SCA received over 364 applications in 2009
- AHA lacked the additional \$10,153,583 to fund all the highly meritorious applications from SCA
- Overall success rate for 2009 is 18.41%
- AHA has funded \$300,967,343 in research in SCA since 1951

SCA states: AR, NM, OK and TX

## Affiliate Research Funding

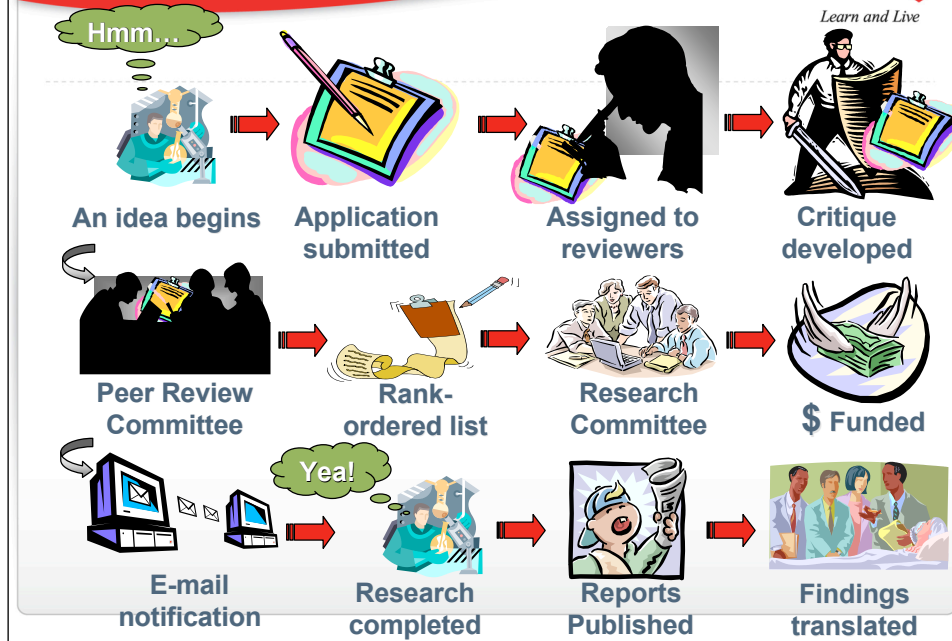
- As of July 2009, AHA currently funds \$42.7 million in active research awards:

Arkansas	\$ 1,063,692
New Mexico	\$ 862,000
Oklahoma	\$ 1,996,000
<u>Texas</u>	<u>\$38,774,921</u>
SCA Total	\$42,696,613



## Life Cycle of a Research Application

American Heart Association  
Learn and Live



American Heart Association  
Learn and Live

## AHA Research Programs

- The AHA supports research broadly related to cardiovascular function and disease, stroke or to related clinical, basic science, bioengineering or biotechnology, and public health problems.

### NATIONAL CENTER AWARDS:

- Fellow-to-Faculty Award
- Clinical Research Program
- Scientist Development Grant
- Established Investigator Award

### SOUTH CENTRAL AFFILIATE AWARDS:

- Predoctoral Fellowship
- Postdoctoral Fellowship
- Beginning Grant-in-Aid
- Grant-in-Aid

## National Awards

### Fellow-to-Faculty Transition Award

- To provide funding for trainees with outstanding potential for careers as physician-scientists in cardiovascular or stroke research during the crucial period of career development that spans the completion of research training through early years of the first faculty/staff positions
  - Maximum of 5 years of support with maximum annual amounts of \$65,000 for the training stage and \$132,000 for the faculty stage

### Clinical Research Program

- To encourage early career investigators who have appropriate and supportive mentoring relationships to engage in high quality introductory and pilot clinical studies that will guide future strategies for reducing cardiovascular disease and stroke while fostering new research in clinical and translational science, and encouraging community- and population-based activities.
  - 2 years of project & salary support with maximum annual amount of \$55,000

## National Awards cont.

### Scientist Development Grant

- To support highly promising beginning scientists in their progress toward independence; bridges the gap between completion of research training and readiness for competition as an independent investigator
  - 4 years of project & salary support - max annual amount \$77,000

### Established Investigator Award

- To support mid-term investigators with unusual promise, a rapidly growing research career and an established record of accomplishments; candidates have demonstrated commitment to cardiovascular or cerebrovascular science as indicated by prior publication history and scientific accomplishments
  - 5 years of project support - max annual amount of \$100,000

## South Central Affiliate Awards

- Predoctoral Fellowship
- Postdoctoral Fellowship
- Beginning Grant-in-Aid
- Grant-in-Aid

## Predoctoral Fellowship

- **To inspire individuals to initiate careers in cardiovascular and stroke research and to support students conducting doctoral dissertation projects which broadly relate to the cardiovascular areas, including stroke.**
  - 1 or 2 years support at \$25,000 per year.
  - Support limited to doctoral candidates enrolled in an accredited non-profit institution in AR, NM, OK, or TX.
  - Sponsor must be applicant's major professor and may sponsor only one Affiliate Predoctoral Fellow at any one time. Any application for a new award that would exceed this limit will not be reviewed.
  - Institutional supplementation permissible under certain conditions.

## Postdoctoral Fellowship

- **To provide stipend support to beginning investigators to further research training broadly related to the cardiovascular area, including stroke.**
  - 1 or 2 years of support up to \$48,000 per year, depending on years of training.
  - Full-time research effort and sincere interest in pursuing a career in cardiovascular and/or stroke related research expected.
  - Applicant must hold a doctoral degree and have less than 5 years of postdoctoral research training and experience at award activation (July 1, 2010).
  - Support limited to work in non-profit institutions in AR, NM, OK, TX
  - Institutional supplementation permissible under certain conditions.
  - An investigator may sponsor no more than two Affiliate Postdoctoral Fellows at any one time. Any application for a new award that would exceed this limit will not be reviewed

## Beginning Grant-In-Aid

- **To promote the independent status of promising beginning scientists by supporting high quality, well-defined research projects in the cardiovascular area, including stroke.**
  - Two-years. Competitive renewal possible for up to 4 years of support, \$70,000 per year maximum, including 10% overhead and up to 50% of total award for P.I. salary-related expenses.
  - Applicants may have no more than \$150,000 of extramural grant support per year, excluding P.I. and collaborating investigator salaries and indirect costs.
  - Applicants must hold a doctoral degree.
  - Limited to faculty (or equivalent staff) of non-profit institutions in AR, NM, OK, or TX, with a rank not exceeding Assistant Professor at award activation (July 1, 2010).
  - Grants will not be awarded to supplement or duplicate any work that is being supported by other funding agencies. The only exceptions are career development awards.

## Grant-In-Aid

- To support the most innovative & meritorious research projects from independent investigators in the cardiovascular area, including stroke.
  - Two-years. (One-year requests permitted). Continuous support of any one investigator is limited to 4 years. \$70,000 per year max, including 10% overhead and up to 50% of total award for P.I. salary-related expenses.
  - Applicants may have no more than \$250,000 of extramural grant support per year, excluding P.I. and collaborating investigator salaries and indirect costs.
  - Applicants must hold a doctoral degree.
  - Limited to faculty (or equivalent staff) of non-profit institutions in AR, NM, OK, or TX.
  - Grants will not be awarded to supplement or duplicate any work that is being supported by other funding agencies. The only exceptions are career development awards.

## 2009 Success Rate by Program

<u>Program</u>	<u>Applications</u>	<u>Funded</u>	<u>Success%</u>
PRE	49	11	22.45%
POST	83	15	18.07%
BGIA	127	22	17.32%
<u>GIA</u>	<u>105</u>	<u>19</u>	<u>18.10%</u>
<b>TOTALS</b>	<b>364</b>	<b>67</b>	<b>18.41%</b>

## The Process - South Central Affiliate



## Application Process

- **What can you do to prepare for the application process?**
  - Notify your third parties that you plan to apply
  - Develop your research plan and specific aims
  - Begin to recruit referents if you are a fellow
  - Develop your training plan with your sponsor if you are a fellow
  - Check with your Grants Office for internal institutional deadlines
- **Considering the feasibility of a 2<sup>nd</sup> funding cycle in SCA**
- **Please call our department at 650-259-6700 or email at [research@heart.org](mailto:research@heart.org) with questions**

## Application Deadline

➔ **FRIDAY, JAN 26<sup>TH</sup> AT 5:00 PACIFIC STANDARD TIME**

➔ **CONTACT YOUR GRANT SPECIALIST EARLY**

## Key Websites

[www.americanheart.org/research](http://www.americanheart.org/research)

- Logon to Grants@Heart (electronic system):
  - <https://research.americanheart.org>
- Deadlines: <http://www.americanheart.org/presenter.jhtml?identifier=10813>
- Programs: <http://www.americanheart.org/presenter.jhtml?identifier=9713>
- Help: <http://www.americanheart.org/presenter.jhtml?identifier=3061398>
- FAQ: <http://www.americanheart.org/presenter.jhtml?identifier=3066407>
- Email Address for Program or Technical Questions:
  - [apply@heart.org](mailto:apply@heart.org) (enter the name of your funding component in subject line)

## Peer Review Change for SCA

SCA has historically partnered with the Western States Affiliate (CA, NV, & UT) in the Region III Review Consortium for the annual application Peer Review process, including the structure of the study groups.

For the Spring 2010 review cycle, there is a new Unified Peer Review Program (UPR) and the SCA will be participating, along with 6 other affiliates and the National Center.

The UPR structure is currently in development and the Spring 2010 Study Groups have yet to be identified. Representatives from SCA have been appointed to the advisory committees and more information will be available soon.

## Science Areas

- Health Promotion/Prevention
- Human Nutrition (Behavioral and Preventive Aspects)
- Obesity
- Nutrition
- Outcomes Research
- Stroke
- Preventive Cardiology
- Quality of Life
- Social Support Systems
- Weight Control



## Science Areas

- **Basic Cell and Molecular Biology**
- **Behavior Studies**
- **Biomedical Ethics**
- **Cardiac Rehabilitation**
- **Clinical Trials**
- **Compliance**
- **Coping Strategies / Stress Mgt**
- **Depression**
- **Epidemiology**
- **Exercise / Physical Activity**
- **Familial Aggregation / Genetic Epidemiology**
- **Health Care Utilization/Cost Effectiveness**

*How you classify your grant will determine to which study section (at least initially) it is assigned*

## SCA Research Advisory Committee

- **11 members with a minimum of 2 from each of the four states**
- **Members serve 3 or 4 year terms**
- **No more than 2 members serving from any one institution**
- **Diversity with regards to gender, PhD & MD/DO, geography and expertise**
- **Chair and Vice Chair each from different states**
- **Two meetings each year: Fall Conference call in November and Spring allocations meeting in May**
- **Responsibilities include: program menu, policy concerns, allocation of funds, promotion of programs and advisory role to affiliate**

## SCA Research Advisory Committee

Chair, Paula Shireman, MD	UTHSC	San Antonio
Glenn Dillon, PhD	UNTHSC	Fort Worth
Rhonda Bassel-Duby, PhD	UTSWMC	Dallas
Rebecca S. Hartley, PhD	UNM	Albuquerque
Myron Hinsdale, DVM, PhD	OSU	Stillwater
Theresa Jones, PhD	UT	Austin
Thomas Kent, MD	BCM	Houston
Timothy Mather, PhD	OMRF	Oklahoma City
Thomas C. Resta, PhD	UNM	Albuquerque
S. Jesse Liu, PhD	UAMS	Little Rock
Jean McSweeney, RN, PhD	UAMS	Little Rock

## Reminders

- Research broadly related to cardiovascular function and disease, stroke, or to related basic science, clinical, bioengineering or biotechnology, and public health problems
- Consider criteria and evaluation priorities
- All basic disciplines as well as epidemiological, behavioral, community and clinical investigations
- Citizenship: US, permanent resident, Visa, E-3, etc.
- Sponsor criteria and support (see application instructions)
- Budget amounts for stipend/salary, project support, fringe benefits, travel, indirect costs and maximum annual amount
- Eligibility by virtue of degree, faculty rank, independence, years of experience, percentage of effort, citizenship, sponsor support, restrictions, location of work and overlap of funding
- Repeat applications (up to 3 times including original)
- Full assessment of peer review ongoing

## Other AHA Scientific Products

- **AHA Professional Membership/Scientific Council**
- **Scientific Statements/Guidelines**
- **Scientific Sessions, Conferences and Workshops**
  - International Stroke Conference, February 2010
  - San Antonio, Texas
- **AHA Scientific Journals**
- **[www.myamericanheart.org](http://www.myamericanheart.org)**