

American Heart Association Strategically Focused Prevention Research Network Request for Applications

The American Heart Association (AHA) is a non-profit, voluntary health organization funded by private contributions. The mission of the American Heart Association is to build healthier lives, free of cardiovascular disease and stroke. These diseases remain the No.1 and No.4 killers of Americans, respectively. A leading priority of the AHA is to fund research that increases an understanding of the causes, prevention and treatments of cardiovascular diseases and stroke.

The American Heart Association has a tradition of support for research spanning more than 60 years. Research is the foundation of all other aspects of the AHA's lifesaving work, generating a tremendous impact on people's lives. After the NIH, the AHA is the leading funder of cardiovascular disease (CVD) and stroke research in the U.S. with over \$3.4 billion spent on research since 1949. One of the many striking outcomes of AHA's research program is the funding of 13 scientists who have gone on to be awarded the Nobel Prize.

The Strategically Focused Research Network (SFRN) is a mechanism that provides AHA an opportunity to address key strategic issues as determined by the AHA Board of Directors. This SFRN will focus on "Prevention" with the AHA supporting four (4) Research Centers for a period of four (4) years. These four (4) Centers will constitute the Network and will receive a total of \$15 million award over that period (including costs for Network oversight and administration). The goal is to select and award four (4) Prevention Centers. The desired characteristics of these Centers, the general requirements of the application and the peer review criteria are described in this Request for Applications (RFA).

Objectives of Request for Applications

The American Heart Association has adopted 2020 goals to improve the cardiovascular health of all Americans by 20% while reducing deaths from cardiovascular disease and stroke by 20%. Scientists and clinicians have played a major role in achieving AHA's 2010 goal to reduce coronary heart disease (CHD), stroke and risk by 25%.

For example, basic scientists have identified the pathophysiologic processes underlying heart disease and stroke, and identified pathways for potential novel therapeutic interventions. Clinical scientists have helped to identify therapeutic agents and approaches that are effective in the prevention and treatment of cardiovascular disease, and traditional and novel risk factors. And population scientists have identified, among others, effective strategies for the prevention of risk factors (primordial prevention), heart disease and stroke targeted to specific populations with varying degrees of susceptibility to these diseases.

However, despite these significant advances, cardiovascular diseases and stroke remain the number 1 and number 4 killers in America, respectively, and among the leading causes of death globally. Additionally, the risk and burden of these diseases is disproportionately greater among underserved minorities.

There are many strategies and pathways that researchers can follow to discover new knowledge that support the AHA's goal to promote healthier lives free of cardiovascular diseases and stroke.

For the intention of this particular RFA, AHA's conceptual framework is that there is a continuum of prevention research from primordial (the prevention of risk factors) to primary (the prevention of CVD and stroke), to secondary (the prevention of recurrent disease and complications) prevention, which can bring together multidisciplinary and cross-disciplinary teams. Specifically, this RFA seeks to have basic, clinical and population teams from individual Centers join together and provide proposals which address the topic of cardiovascular disease and stroke prevention via their individual areas of expertise. A Center may be intra- or inter-institutional. Each Center applies for funding individually and is peer reviewed by the AHA. The most meritorious Center applications and their research projects will be combined by the AHA to form the Strategically Focused Prevention Research Network (see Illustrations 1 and 1.1).

It should also be noted that the increased availability of consumer-oriented health tools and social media, among others, has created unconventional opportunities for natural experiments and novel interventions that could inform the development of effective health behavior change strategies aligned with ideal cardiovascular health. Multidisciplinary research that takes advantage of such innovative tools also falls within the scope of this RFA. Furthermore, collaboration is encouraged with social and behavioral scientists, health policy experts, and other experts to identify programs that effectively modify an individual's lifestyle in a fashion that unequivocally reduces the risk of cardiovascular disease and stroke.

The AHA is committed to an investment of \$15 million to establish this Prevention Network which provides almost \$4 million per Center. This level of investment will support fully integrated collaboration across science disciplines.

The AHA intends to fund four Centers that will encompass the following goals:

- Accelerate generation of important, novel ideas
- Answer significant questions addressing gaps in knowledge
- Create important gains (developing new investigators is one such gain)
- Link research and training components through the program
- Prioritize multidisciplinary approaches with frequent collaborative interactions
- Demonstrate efficacy through data collection and evaluation
- Demonstrate the effectiveness or the applicability of the findings in clinical, public health or community-based settings such as workplaces, schools, churches or other "real-life" settings.

It is anticipated that the results of the funding and formation of the AHA Strategically Focused Prevention Research Center Network and their linking in this structure will:

- Produce a cadre of new investigators who will energize the prevention field and lead to the generation of an expansion of the numbers of such investigators in later years
- Produce new research results based on the initial ideas of the Centers and on ideas generated by the interaction of the Centers and their investigators
- Provide insights into and report on the challenges and successful mechanisms for active collaboration
- Identify programs and policies that result in individual lifestyle modifications that reduce the risk of cardiovascular disease and stroke.

Although successful applicants are asked to demonstrate effectiveness of the research outcomes by articulating a plan proposing how the results could be implemented in clinical or public health settings, this does not guarantee that funds will be available for the proposed implementation. However, the plan will assist the AHA in exploring opportunities to advance the research findings therefore it is strongly preferred that successful applicants articulate such a plan.

Examples of multidisciplinary research approaches

The intent of this initiative is to support a collaboration of basic, clinical and population researchers from different disciplines whose collective efforts will lead to new approaches, to improve the prevention of cardiovascular disease and stroke. Following is an illustrative list of example questions that could be addressed by a Center. The examples below display the spectrum of research that can be performed within a Center, but are not intended to represent the level of integration, from basic to population science. Evidence of synergy among the projects will be expected to comprise the strongest applications.

Example 1: Focus on the Prevention of Sudden Cardiac Death (SCD)

Basic science questions:

1. What gene regulatory network(s) governs the cardiac conduction system?
2. Is *SERCA2* gene therapy effective for the prevention of SCD?

Clinical science questions:

1. What is the impact of reducing trans fatty acid intake on heart rate variability in older and younger adults?
2. Does cognitive behavior therapy improve the psychological adaptation to an implantable cardioverter defibrillator?

Population science questions:

1. What is the correlation between dietary fat intake and SCD in Hispanic women?
2. What is the risk of SCD in patients with obstructive sleep apnea?
3. What is the association of cardiac symptoms with SCD?
4. How can PAD programs be modified to further improve the outcomes of cardiac arrest?
5. What programs and policies are effective in primary prevention of SCD?

Example 2: Focus on the Prevention of Stroke

Basic science questions:

1. What animal stroke models are most representative of stroke in humans?
2. What new anti-inflammatory / immune-modulatory therapeutic options are showing success in the laboratory?

Clinical science questions:

1. Does transcendental meditation combined with health education reduce the risk of developing stroke in African Americans?
2. Does self-management for the control of blood pressure in stroke patients improve outcomes above and beyond usual care?

Population science questions:

1. Are optimized *Life's Simple 7* scores (health factors) predictors of ischemic stroke?
2. What novel new treatments in neuro rehabilitation can improve neurogenesis and behavioral recovery?

3. What programs and policies are effective in primary prevention of cerebrovascular disease and atrial fibrillation?

Example 3: Focus on Heart Failure (HF)

Basic science questions:

1. To what degree can the mechanisms of enhanced mitochondrial biogenesis, mitochondrial DNA repair and removal of damaged mitochondria by mitophagy reverse myocardial remodeling?
2. Do macrophages play a role in the initiation and progression of hypertension-induced left ventricular (LV) remodeling?
3. What role does the reactivation of Wnt signaling play in the growth of cardiomyocytes?

Clinical science questions:

1. How can we improve adherence to aldosterone antagonist therapy in heart failure patients transitioning from hospital to home?
2. Does home based telehealth improve health related quality of life, anxiety, and depressive symptoms in heart failure patients with long term conditions?

Population science questions:

1. What is the association between dietary sodium intake in patients with HF and hospital readmission?
2. What is the prevalence of preclinical and clinical HF in American Indians?
3. What are the clinical characteristics of HF patients with preserved ejections fractions?
4. Can a pharmacist-led intervention reduce 30, 60 & 120 day readmission rates in patients with severe NYHA Class III HF?
5. What programs and policies are effective in preventing development of heart failure?

Example 4: Primordial Prevention

Basic science questions:

1. What epigenetic changes are caused by genetic variants associated with obesity?
2. How does obesity alter neurohormonal activation in animal models of obesity?

Clinical science questions:

1. Can eHealth, exercise or diet effectively lower blood pressure in the intermediate term in ethnic/racial minorities? In older adults? In rural settings?
2. Does social networking with family vs. friends vs. coworkers increase adherence to exercise regimes in underserved populations.

Population science questions:

1. Does modifying the built environment improve physical activity?
2. Are public policies and legislation effective in promoting physical activity?
3. Do religiosity or social inclusion reduce health care disparities?

Additional investigative areas that would be responsive to this RFA may include, but are not limited to:

- Understanding the pathophysiology and/or improving cardiovascular/stroke health disparities in specific populations (e.g.: racial, urban vs. rural, men vs. women) across the lifespan;

- Research aimed at understanding the underlying biology and/or treating and/or preventing obesity in early childhood
- Leveraging natural experiments that use novel behavior change strategies in community-based or public settings
- Research aimed at the regression of atherosclerosis
- Partnering with social scientists, behavioral psychologists and others to identify best practices for primordial prevention of risk factors for cardiovascular disease and stroke
- Studies of International cardiovascular/stroke health and quality of care
- Cross-disciplinary approaches to the prevention of vascular cognitive impairment
- Innovative research in thrombosis to prevent cardiovascular disease
- Evaluating the use of current AHA tools (e.g.; Get With The Guidelines, Go Red For Women, Life's Simple 7, etc.) as part of a broader approach to prevention
- Identification and evaluation of effective strategies for primordial prevention
- Basic, clinical, population and global health strategies to promote cardiometabolic health.
- Evaluation of workplace wellness strategies and initiatives
- Methods-based advances in basic, clinical or population prevention research (e.g.; development of novel immunoassays, identification of novel biomarkers or validation of population-based screening tools)

Disciplines and Expertise

Multidisciplinary teams are appropriate and desired and can be broadly defined. Basic disciplines such as cell/molecular biology, biochemistry, bioengineering/biotechnology, immunology/virology, genetics/genomics, physiology, vascular biology, geneticists and bioinformaticians among others are all appropriate. Clinical disciplines, general internal medicine, nutrition and dietetics; cardiology, pediatric cardiology, cardiovascular surgery, exercise physiology, nephrology, anesthesia, nursing, emergency medicine, kinesiology, endocrinology, neurology, psychiatry and behavioral science are all appropriate. In addition, public health disciplines including the fields of health communications, health marketing, informatics, individual and collective behavior are all of interest. Epidemiological, interventional, and behavioral science, biostatistical, and health economic approaches are appropriate to the focus of this program as well as eHealth and related technologies.

Key Requirements of the Center Application

This RFA embraces a Network "Center" concept. Thus, it would be appropriate for three (3) studies to be submitted from each Center applying to be in the Network and to have an integration of these studies within each Center. Each Center will include several components: a designated Center Director, three (3) projects, and a research postdoctoral fellowship training component.

The development of each Center will be the responsibility of the Center Director, who will coordinate the projects and the training program. The Director will provide administrative and scientific leadership and will be responsible for the organization and operation of the Center, and for communication with the AHA Strategically Focused Prevention Research Network Oversight Advisory Group.

A major component of the Centers selected for funding under this initiative will be their ability to foster a successful program for the interdisciplinary training of a new generation of scientists who, from their earliest experiences in research, will collaborate with other scientists through monthly meetings with established investigators and annual meetings with other investigators participating in the Centers. An ultimate product of this program will be the creation of a report on the challenges and results of active collaboration.

Program Structure

Each Center will:

- Conduct three (3) research projects of scope equivalent to an R01
- Provide a training program for fellows, training three (3) Center-funded postdoctoral fellows during the period of the award
- Be linked to the other Centers by interactions/meetings to accelerate exchange of ideas, encourage sharing of commonly-useful knowledge and methods, and provide networking opportunities for trainees
- Report annually on its efforts towards integration with the other centers, as well as observations on successes/challenges of such integration
- Interact as part of the American Heart Association Strategically Focused Prevention Research Network

Postdoctoral Fellowship Training Requirements:

- Each Center will provide a multidisciplinary training program to give fellows basic, clinical, population, and translational research experience.
- Each Center will train 3 fellows during the period of the award (one two-year fellowship in years one and two; one two-year fellowship in years two and three and a final two-year fellowship in years three and four).
- Each Center will provide professional, non-medical training in the form of presentation and communication skills.

Collaboration Requirements:

- Centers will be expected to meet and collaborate with each other through interactions and meetings to accelerate information exchange and ideas;
- Centers will be expected to comprise a team that meets on a regular basis and develops one or more collaborative projects;
- Centers will collaborate and participate in producing an end-of-award report about the challenges, mechanisms and successes of the Centers' collaborations;
- Centers will consider themselves part of the AHA Strategically Focused Prevention Research Network.

Collaboration Expectations

Once awarded, there is an expectation that the four (4) Centers will interact with each other, in particular to provide networking opportunities for trainees, to encourage sharing of commonly-useful knowledge and methods, and to provide a stimulating atmosphere for research collaborations. Strategies for communication and interaction among the Centers should be addressed in the proposal and could include ways to encourage interaction, augment or expand that Center's study findings, share training opportunities for fellows and junior investigators, etc. Center personnel will be expected to participate in annual meetings and visits to other centers in the network. Annual progress reports describing each Center's efforts towards integration, as well as a report on successes/challenges of such efforts, will be required.

Centers selected for funding will be expected to interact and develop new hypotheses leading to collaborative projects. The collaborating Centers are expected to share everything from "samples to ideas." The Centers will be expected to work with the AHA Oversight Advisory Group to define the strategies for leadership in training and interdisciplinary collaboration, as well as a clear commitment to collaboration with other disciplines and other centers.

Eligible Institutions and Investigators

Awards are limited to non-profit institutions in the United States, such as universities and colleges, public and voluntary hospitals, laboratories, research institutes, and other non-profit institutions that can demonstrate the ability to conduct projects and organize a center. Applications will not be accepted for work with funding to be administered through any federal institution or work to be performed by a federal employee with the exception of Veterans Administration employees.

The Centers are not transferable to other institutions. An institution may submit only one AHA Strategically Focused Prevention Research Network Center application per institution for this competition. The application may include individuals and/or projects at more than one institution provided there is evidence for a successful close personal and geographical interaction among research and training personnel. It is the responsibility of the *submitting institution* to ensure that only one proposal is submitted for the institution or to coordinate across several institutions to create a single application. The Center Director's institution will maintain fiscal responsibility for the entire award. The appropriate Institutional Officer should sign off on the proposal in AHA's online grants management system, Grants@Heart.

Directors and Principal Investigators of projects of the Centers must possess an M.D., Ph.D., D.O., D.V.M., or equivalent doctoral degree at time of application. They should be faculty or staff members of the non-profit applicant organization at application. Directors and Principal Investigators of projects of the Centers may hold another AHA award simultaneously. The Center Director may submit a Center project proposal. There is a 20% minimum effort requirement for the Director and a 10% minimum effort requirement for Principal Investigators (PI) of Center projects. Director and Project PI salary requested must be proportional to the percent effort devoted to the Center.

The Center Director must demonstrate expertise in the area of prevention research, with demonstrated ability to build a Center team. The Director should ideally demonstrate a successful history of leadership in a research project team and in career development. A clear demonstration of the Director's commitment to integration with the other Centers is required. Experience in multi-institutional collaboration is encouraged.

The responsive application will demonstrate a history of successful post-doctoral fellowship training with a plan to continue the program or a strong plan to develop a successful program. In addition, training in clinical outcomes research and translational research concepts as well as collaborative research should be described in the application. Collaborative interdisciplinary training programs are encouraged. An emphasis on the areas of epidemiology and prevention is encouraged.

A viable source for identifying and recruiting trainees must be presented in the application and while trainees are not required to be named at the time of the application submission, the first set of fellows must be identified by July 1 of 2015. The trainee fellows must possess an M.D., Ph.D. or equivalent doctoral degree at the time of participation in the program. Collaborative interdisciplinary training programs are encouraged.

Citizenship Requirements for Directors, Principal Investigators and Fellows

Directors must have one of the following designations:

- U.S. citizen
- Permanent Resident
- Pending Permanent Resident (must have applied for permanent residency and have filed Form I-485 with the U.S. Citizenship and Immigration Services and have received authorization to legally remain in the U.S., having filed an Application for Employment Form I-765)
- G-4 Visa – family member of employee of international organizations and NATO

Principal Investigators of proposed projects must have one of the following designations:

- U.S. citizen
- Permanent Resident
- Pending Permanent Resident (must have applied for permanent residency and have filed Form I-485 with the U.S. Citizenship and Immigration Services and have received authorization to legally remain in the U.S., having filed an Application for Employment Form I-765)
- E-3 Visa – specialty occupation worker
- H1-B Visa – temporary worker in a specialty occupation
- O-1 Visa – temporary worker with extraordinary abilities in the sciences
- TN Visa – NAFTA professional
- G-4 Visa - family member of employee of international organizations and NATO

Named fellows of the Centers must have one of the following designations:

- U.S. citizen
- Permanent Resident
- Pending Permanent Resident (must have applied for permanent residency and have filed Form I-485 with the U.S. Citizenship and Immigration Services and have received authorization to legally remain in the U.S., having filed an Application for Employment Form I-765)
- E-3 Visa – specialty occupation worker
- H1-B Visa – temporary worker in a specialty occupation
- O-1 Visa – temporary worker with extraordinary abilities in the sciences
- TN Visa – NAFTA professional
- J-1 Visa – exchange visitor
- F-1 Visa – student
- G-4 Visa - family member of employee of international organizations and NATO

All awardees must meet the citizenship criteria throughout the duration of the award.

Fellowship Qualifications

Named fellows of the Centers at U.S. institutions must hold a Ph.D., M.D., D.O., D.V.M. or equivalent doctoral degree and commit 75% effort to research training. Center fellows may commit a minimum of 70% effort if justification is accepted by the AHA Oversight Advisory Group. A named fellow may not hold another fellowship award, although the institution may provide supplemental funding. Fellows may not hold a faculty or staff appointment, with the exception of M.D.s or M.D./Ph.D.s with clinical responsibilities. These fellows may hold a title of instructor or similar due to their patient care responsibilities, but must devote at least 75% effort to research training. A named fellow may have been a recipient of an AHA fellowship, but may not hold an AHA affiliate fellowship or AHA Fellow-to-Faculty Transition Award at the same time as an AHA Strategically Focused Prevention Research Network fellowship.

Other Relevant Policies

The Center awards are not transferable to other institutions. The projects described can have no scientific or budgetary overlap with other funded work. Any inventions, intellectual property, and patents resulting from this funding are governed by the AHA Patent, Intellectual Property and Technology Transfer Policy. The applicant/awardee and institution are responsible for compliance with all American Heart Association research award policies and guidelines for the duration of any awards they may receive. Go to Policies Governing All Research Awards to review AHA policies

at http://my.americanheart.org/professional/Research/FundingOpportunities/ForScientists/Policies-Governing-All-Research-Awards_UCM_320256_Article.jsp .

Application Submission Process

Only one Center proposal, including multiple research project proposals, may be submitted from an institution. Each Center application should have only one (1) Center Director. Co-Directors will be in name only and will not be recognized on official documents or publications. Institutions that are part of the prospective Center's application are not eligible to submit a separate Center application. The completed application must include the primary Center application, three individual research project applications, and overall training plan. The components of the application are described below.

Application instructions for the AHA Strategically Focused Prevention Research Centers will be available on the American Heart Association's web site <http://www.americanheart.org/presenter.jhtml?identifier=3029220> approximately November 15, 2013. Applications will only be accepted through AHA's online research system – Grants@Heart.

Components of Application

Primary Center Application

The Director of the proposed Center must submit an umbrella application which consists of the following components:

- 1) Vision for the Center (*a clear, unifying central theme to which each research project application relates*)
- 2) Information regarding the Director
- 3) Information regarding any current prevention research programs and any history of successes in prevention research
- 4) A detailed description of the multidisciplinary training program for the AHA Strategically Focused Prevention Research Center two-year fellowships (basic, clinical and translational research exposure), including information regarding the selection of prospective fellows and how funded fellows' ongoing progress will be guided via an individual development plan (IDP) and evaluated at least annually. In addition to participating in annual SFRN Center meetings, Centers are expected to incorporate collaboration with established investigators at other Prevention Research Network Center institutions through regular meetings and/or Center-to-Center visits
- 5) Information on current training programs and training grants within the Center institution and affiliated institutions (if appropriate)
- 6) Information regarding other faculty/staff members at the Center institution and affiliated institutions (if appropriate) who will be submitting research projects
- 7) Information on research funding available to the Director and proposed Principal Investigators on Center research projects
- 8) Information on existing collaborative research teams within the Center institution and affiliated institutions (if appropriate) and their ability to share information and

- methodologies with other institutions
- 9) Information on facilities available to support the Center and affiliated institutions' (if appropriate) research projects
 - 10) An overview of the estimated four-year budget for the Center
 - 11) Information regarding the identification of a faculty/staff member at the Center institution or affiliated institutions (if appropriate) with the leadership skills to bring team-building and professional/organizational development to the collaborative process

Center Research Project Applications

A Center research application must include three (3) research projects related to cardiovascular disease prevention research. Each project should demonstrate importance and relevance of the research to prevention. The projects proposed by a Center will be reviewed as a group. Centers should submit their most competitive projects feasible within the budget described for a Center. American Heart Association research funds will not be awarded to supplement or duplicate any work which is being supported by other funding agencies.

The Principal Investigator of each proposed research project must submit an application which consists of the following components:

- 1) Required application forms
- 2) Investigator's qualifications
- 3) Specific project aims
- 4) Background and significance
- 5) Preliminary data on same or related problems
- 6) Contemplated methods of approach to problem
- 7) Evidence of successful collaboration with other Center members
- 8) Ethical and human subject aspects

Peer Review Process

Review of the applications will be conducted by the American Heart Association and will occur in two phases. For the first phase, a peer review committee of volunteer scientists will be assembled to review all the submitted Center applications. Appropriate scientific expertise will be sought to review the applications received. Each application will be reviewed in depth by a minimum of 3 peers and more than likely four (4) reviewers will be analyzing each aspect of the submission, i.e. Center, Projects, Training Program and Collaboration. These reviews will be presented to a peer review panel of 12 or more. At the discretion of the review committee, and based upon the preliminary scores assigned to an application by the assigned reviewers, a streamlined review may be conducted for any application. After discussion of each Center proposal, each panel member will score each application, using the current AHA review scoring system. The Centers and their projects will be ranked, based upon the average merit scores and percentile ranking of the panel members' scores.

A second stage of the review will then be conducted with only the highest ranked Center applications, and will include a "reverse site-visit" presentation to the AHA review group by the Center Director and select members of the Center team, a minimum number of participants, to be decided, will be invited to the presentation. Reviewers will score the Centers as a whole following the presentations, with the average of the reviewers' scores providing the final ranked list of applications. The ranked list will be reviewed by the AHA Research Committee, and the four Centers with the highest rank will be funded, contingent upon resolution of any policy concerns.

Peer Review Criteria

The following major factors will be considered in the evaluation of each Center. These factors are intended to assist applicants in determining the appropriateness of candidacy. All of these factors will be entered into the deliberations of the peer review committee. These factors are not listed in any specific order of priority.

I. Projects – Potential impact of the project on cardiovascular disease prevention research; strengths of applicant investigators (qualifications, expertise and productivity); potential for collaboration or synergy of projects; scientific content; background; preliminary studies; detailed specific aims; approach detail; analytical plan; sample size; data management; significance; innovation; individual project scientific merit; and total project coordination (within and among projects). Projects will be rated on the following areas:

- **Approach:** Are the conceptual framework, design, methods and analyses adequately developed, well integrated, well-reasoned and feasible (as determined by preliminary data) and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics?
- **Innovation:** Is the project original and innovative? For example: Does the project challenge existing paradigms and address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches, methodologies, tools or technologies for this area?
- **Investigator:** Is the investigator appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the principal investigator and other researchers? Does the investigative team bring complementary and integrated expertise to the project (if applicable)?
- **Significance:** Does this study address an important problem broadly related to cardiovascular disease or stroke? If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect of these studies on the concepts, methods and technologies that drive this field?
- **Environment:** Does the scientific environment in which the work will be done contribute to the probability of success? Do the proposed studies benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?
- **Relationship to other Projects:** Does the project complement other aspects of the proposed Center, including other Center projects? Is there evidence of synergy among the projects and training component of the Center?

II. Training component – A detailed plan for developing and implementing a postdoctoral training program that includes clinical (M.D.) or Ph.D. training in prevention research; qualifications and characteristics of current and anticipated trainees; didactic and practicum training opportunities; plan for the selection of prospective fellows and how funded fellows' ongoing progress will be guided via an individual development plan (IDP) and evaluated at least annually. Plan for involving fellows in annual Center meetings and Center-to-Center visits, and for identifying opportunities for fellows to work with established investigators at other network Centers; ability to track trainees; conferences and meeting participation for trainees; documentation of a ready supply of fellows; and history of successful fellowship training for prevention researchers.

III. Center Team – Qualifications of the Director to provide scientific and administrative leadership for the Center; experience and commitment of the nominated Director; quality of prevention research team; qualifications of investigators and co-investigators; experience with prevention related studies; training experience.

IV. Environment – Institutional commitment, resources and facilities to sustain the Center; institutional resources available to complete the project; analytical resources available to the project; letter from Center Director's Department Head assuring the department and institution's support of the Center along with confirmation that the Center Director will devote at least 20% effort towards the Center. Other Center personnel may be appointed to assist the Director in the administration of the Center. However, the Director will be required to devote 20% effort to the Center.

V. Interaction Plan within and among Centers—Plan for and commitment to sharing of commonly-useful knowledge and methods, providing a stimulating atmosphere for research collaborations, and providing networking opportunities for trainees. Cited strategies for communication and interaction among the Centers.

Peer Review Scoring Criteria

I. Projects – Potential impact of the project on prevention research; strengths of applicant investigators and collaborations (qualifications, expertise and productivity); scientific content; background; preliminary studies; detailed specific aims; approach detail; analytical plan; sample size; data management; proposed productivity; significance; innovation; individual project scientific merit; and total project coordination (within and among projects).

(30%) of total evaluation

II. Training component – A detailed plan for developing and implementing a training program that includes clinical (M.D.) training in translational research and Ph.D. training in prevention research investigation; opportunities for non-medical training including communication and presentation skills; didactic and practicum training opportunities; ability to track trainees; conferences and meeting participation for trainees; documentation of a ready supply of fellows; qualifications and characteristics of any current or anticipated trainees and history of successful fellowship training for clinicians and academic researchers.

(20%) of total evaluation

III. Collaboration – History, ability and commitment to collaborate with other institutions, investigators and within the applicant institution. Defined and detailed process for collaboration with other sites in addition to within and among the proposed different projects; plans to actively participate in a collaborative network. Evidence of formal training in leadership skills with an emphasis on collaborative leadership will be favorably reviewed.

(25%) of total evaluation

IV. Center Director – Demonstrated ability to lead others, along with experience and commitment to the success of the Center, the projects contained within, and the Network as a whole. Documented evidence of willingness to collaborate with others outside their institution to share ideas, science, etc. to progress the field of prevention research.

(10%) of total evaluation

V. Investigator team – Qualifications of each PI to provide scientific and administrative leadership for their respective projects; demonstrated commitment of each PI, and experience with prevention studies; quality of interdisciplinary research team; qualifications of co-investigators; training experience.

(10%) of total evaluation

VI. Environment – Institutional commitment, resources and facilities to sustain the Center; institutional resources available to complete the project; analytical resources available to the project.

(5%) of total evaluation

Reverse Site Visit Expectations

If a Center application is selected to move to the 2nd phase they will have the critiques and committee member comments available electronically at the time of notification. The Center Director and key personnel will have anywhere from 3-4 weeks to prepare for the reverse site visit. The committee members will listen to the presentation in response to the critiques, plus any additional information that is presented. There will be a question and answer period, so the actual presentation should not be more than 30 minutes, which will allow for responses and follow-up questions from the panel. The entire reverse site visit will last approximately 45 minutes.

Human Subjects and Ethical Considerations

All applications are expected to adhere to American Heart Association research program policies and standards including those regarding the ethical treatment of human subjects, as well as the policy addressing inclusiveness of study populations relative to gender, race, age and socioeconomic status. Institutional review board approval will be handled on a “just in time” basis and will be required by the date of the first quarterly payment made to the institution. Funding is contingent upon institutional review board approval initially and for the duration of the award. Any ethical concerns identified via the review process shall be forwarded to the AHA Research Committee for consideration. http://my.americanheart.org/professional/Research/FundingOpportunities/ForScientists/Policies-Governing-All-Research-Awards_UCM_320256_Article.jsp

Oversight Advisory Group

Once the Centers are selected, the AHA Strategically Focused Prevention Research Oversight Advisory Group will provide external oversight for the Centers and serve in an advisory capacity to the Centers. Anyone who applies to the Program and is funded will not be considered for membership on the Advisory Group. Center Directors and project PI's will report to and meet with the Advisory Group regularly. The Oversight Advisory Group also will offer advice to the AHA Research Committee's National Research Program Subcommittee on the progress of the Centers and any issues that arise in their administration.

Responsibilities of the Oversight Advisory Group include:

- Monitoring the scientific progress of the Centers and Center Projects
- Overseeing and annually evaluating the program, including an evaluation of the progress of the trainees, making recommendations regarding continuation to the National Research Program Subcommittee
- Monitoring and encouraging interaction efforts within and among Centers. The Advisory Group will encourage Centers to change traditional culture by rewarding interaction and will request an annual report on the successes and challenges resulting from efforts to interact
- Making recommendations to the AHA Research Committee's National Research Program Subcommittee regarding management of the program

The Advisory Group will include:

- leading established investigators in outcomes research who are not funded by the Program
- investigators experienced in multidisciplinary approaches
- at least one (1) member who is a specialist in (bio)statistics
- at least one (1) member who is a specialist in epidemiology
- at least one (1) member who is a specialist in economics and social science

- at least one (1) member of the request for applications (RFA) writing group
- a representative from the AHA Research Committee's National Research Program Subcommittee.

Network Membership Responsibilities

One of the key objectives of this initiative is to encourage interaction among the Strategically Focused Prevention Research Network Centers, both in training and research efforts. An important component of the initiative is a multi-disciplinary approach both within and among Centers that comprise the Network. The structure of the Network will include sufficient components to maximize the interaction and collaboration among the Centers. The AHA Oversight Advisory Group will track and encourage interactive and collaborative activities, and develop and implement a plan for regular dialogue among the Center participants. The entire network should operate as a team.

The initiative will begin with a meeting of all key staff from the Centers and the Oversight Advisory Group. This meeting, among other things, provides a forum for determining the nature and extent of interactions, collaboration and information sharing. Subsequent meetings, teleconferences, and other interactions among the Centers will occur throughout the duration of the initiative. The institutions in which the Centers are located must provide assurance that no barriers exist to thwart collaboration and sharing of ideas. A minimum requirement of the Centers within the Network is that they agree to change any local data collection system to a common one appropriate to the network. Technological support for this multi-site program with an emphasis on collaboration will be provided to facilitate all the required interactions/meetings in an effective and convenient manner.

Program Evaluation

Preliminary measures of the success of the initiative have been identified. Each Center will be required to provide an annual interim report, as well as a final written scientific report of progress. Progress made and plans for the coming year shall be addressed in these annual reports. In addition to the annual and final report of progress from each Center, funded Centers will be asked to report on the following measures:

- Productivity of Centers - track publications and citations; document outcomes of research projects; document other funding resulting from the current initiative
- Transfer of intellectual property to the marketplace
- Impact of the fellowship training experience on career development: track trained fellows over a five-year period for such measures as percent of time in research, publications, other funding, promotion
- Report on the interaction among the Centers and lessons learned, including measures of level of collaboration, such as heterogeneity of co-authors of papers (number of academic departments represented among co-authors)

Budget

The Program will have a total budget of approximately \$15 million. The funding will be allocated as follows:

	<u>Network Totals</u>	<u>Center Totals</u>
<u>Projects</u>		
Three projects at each of four Centers for four years <i>Maximum of \$711,000 per year to be divided among the Projects funded at the Center. PI must commit at least 10% effort to project. Includes PI salary and fringe and/or consultant salary commensurate with percent effort.</i>	\$11,376,000	\$2.844M/Center
<u>Fellows</u>		
Three Fellows at each Center for two years each	\$1,200,000	\$0.3M/Center
<u>Center Director</u>		
One Director at each Center for four years <i>Up to \$50,000 per year for each Director. Center Director must commit at least 20% effort</i>	\$800,000	\$0.2M/Center
<u>Center Travel Costs</u>		
<i>(Covers travel for Center personnel to Center network meetings and other integration activities)</i> \$28,000/Center	\$112,000	
<u>Direct Costs (Total)</u>		
\$3.372m/Center Research Dollars	\$13,488,000	
<u>Indirect Costs</u>		
AHA Policy allows for a maximum of 10% for indirect costs	\$1,348,800	\$0.3372M/Center
Total	\$14,836,800	3.7092M/Center

The total amount requested per Center, *including* 10% indirect costs, annually may not exceed approximately \$3.7 million for the 4-year award.

The Center Director will be responsible for overseeing the total budget for his/her Center within the Network. If awarded, the Director and the institution assume an obligation to expend grant funds for the research purposes set forth in the application and in accordance with all regulations and policies governing the grant programs of the American Heart Association, Inc.

The AHA is currently paying all research payments quarterly on or around the 17th of the month following the end of the calendar quarter. Payments are made to institutions on behalf of the Director. If activated October 1, the first payment to the Center would be sent on or around January 17th (and in April, July, October and January thereafter).

Timeline

<i>Activity</i>	<i>Date</i>
Promotion of program	September 2013 – December 2013
Application instructions on AHA web site	October 2013
Letter of intent deadline	December 16, 2013
Center and Center Projects Deadline	February 4, 2014
Review of proposals (two phases)	April 2014 – May 2014
Funding decisions made by AHA Research Committee / Applicants Notified	June 2014
AHA Strategically Focused Prevention Research Centers activated	July 1, 2014
Centers conduct research, train fellows, interact, report results	July 2014 – June 2018

Letter of Intent

Prospective applicants are requested to submit a letter of intent for the AHA Strategically Focused Prevention Research on or before **December 16, 2013**. The letter should include the following information:

- Name, institution, address, telephone, and e-mail of proposed Director
- Names, institutions, addresses and e-mails of proposed Principal Investigators for Center research projects
- Names, institutions, addresses and e-mails of other Key Personnel, such as mentors for the training/fellowship program
- Information on any additional participating/affiliated institutions not listed above
- Brief overview of proposed projects – maximum 1-2 paragraphs per project

While a letter of intent is not required in order to submit a subsequent full application and does not enter into the review of said subsequent application; the information provided in a Letter of Intent allows AHA staff to estimate the potential peer review workload and to avoid potential conflicts of interest in the peer review process. It also allows AHA to provide potential applicants with updated information about the application process if necessary.

The letter should be sent electronically via e-mail to the American Heart Association with a subject heading of AHA Strategically Focused Prevention Research Network.

Inquiries

Inquiries regarding this RFA may be sent to:
Phone 214-360-6107

