American Heart Association
Vascular Disease
Strategically Focused Research Network
Request for Applications

Key Dates

RFA Posted:	June 2017
Letter of Intent Deadline	August 1, 2017
Application Deadline:	September 26, 2017
AHA Peer Review:	Fall 2017
Notification of Awards:	Winter 2018
Award Start Date:	April 1, 2018

Award Objectives and Characteristics Announcement

The American Heart Association announces a Request for Applications for the Strategically Focused Vascular Disease Research Network.

Purpose

Vascular diseases, including atherosclerotic peripheral vascular and aortic diseases are prevalent in the U.S. and other nations. More than 202 million people worldwide suffer from peripheral artery disease, including more than 8 eight million in the U.S. It affects approximately 12-20% of individuals older than age 60. Additionally, individuals with PAD suffer about a 5 percent annual rate of major adverse cardiovascular events. If left untreated or inadequately treated, these disorders may become life-threatening and disabling.

This Strategically Focused Research Network provides AHA with a mechanism to enhance the understanding of the causes, biology, pathophysiology and epidemiology of these disorders, and to develop more effective ways to prevent and treat them with ultimate improvement in outcomes. Vascular Diseases, specifically Peripheral Artery Disease (PAD) and/or Aortic Disease, constitute a broad array of disorders, but applications responsive to this SFRN RFA must focus specifically on peripheral artery disease and aortic diseases in order to enhance synergy among centers and within the network. Applications focusing on other vascular diseases, such as: coronary artery disease; cerebrovascular disease; acute and chronic venous diseases including venous thromboembolism, venous insufficiency and varicose veins; pulmonary and systemic hypertension; vasospasm; lymphedema; or vasculitis will NOT be considered.

Topics of Interest

Specific Questions to be Answered by this Grant Opportunity
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 study vascular disease, particularly Peripheral Artery Disease and Aortopathy. Population studies are inclusive of projects ranging from cohort studies to translational work involving community interventions.

Each Center must have three (3) research projects in at least two (2) of these three (3) disciplines: basic, clinical, and population science. All projects must focus on Vascular Disease research.

Note: Centers are highly encouraged, where applicable, to align with AHA initiatives which are addressing vascular disease (e.g. Improving Vascular Disease Prevention, Detection and Treatment monograph).

Researchers are encouraged to use AHA metrics as their research outcomes measures, health metric scores, or improving health metric scores. Researchers are encouraged to address interventions where efficacy can be measured via AHA mission metrics.

Specific aims and studies aimed at the scope of the questions listed below would all be considered within the scope of this SRFN. The following is an illustrative list of overarching themes that could be addressed by a Center. Successful applications will provide strong evidence of synergy among the proposed projects and will address at least one of the issues below or an alternate issue of equal importance.

What are novel *BASIC MECHANISTIC PATHWAYS* which could impact people with vascular disease?

- What are the factors that determine peripheral artery and aortic remodeling?
- What factors regulate calcification of peripheral arteries and the aorta?
- What are the molecular connections that drive the relationships between obesity, hypercholesterolemia, diabetes, inflammation, or chemotherapy, etc. and vascular disease risk and what are pathways to blocking or attenuating this risk?
- Are there variants to these connections that occur in children and adolescents or across diverse populations of patients?

What are the *COMORBIDITIES* associated with vascular disease?

- What new interventions or improvement in current interventions can prevent or reduce PAD events in patients with co-morbidities such as obesity, diabetes, heart failure, hypertension, metabolic syndrome, cancer, etc.

What are the patterns and regulation of expression of *DIAGNOSIS* / *RISK ASSESSMENT* associated with vascular disease?

- What newer biomarkers, tissue markers, cytokines, imaging modalities, non-invasive techniques, etc. can identify a priori patients at risk for PAD or aortic disease, predict their disease progression or identify who are destined to have a poor clinical and quality of life

outcomes from interventions (e.g. lifestyle changes, pharmacologic therapy, endovascular and/or surgical interventions)?

What are the patterns and regulation of expression of *GENETICS & GENOMICS* associated with obesity?

- What are the genetic, phenotypic, metabolomic, proteomic or molecular determinants of PAD and aortic disease?
- How can these determinants be used to develop new diagnostics or therapeutics for these disease entities?
- Do, and if so, how do these determinants explain the impact aging, gender difference or race have on the progression and outcomes of PAD and aortic disease?

What effective measures including interventions of *LIFESTYLE / BEHAVIOR / PRIMARY OR SECONDARY PREVENTION* can improve vascular disease outcomes?

- How effective are lifestyle and behavior change strategies (diet, physical activity, optimal body weight, smoking cessation, etc.) in primordial to secondary prevention of PAD and aortic diseases?
- How is the efficacy of these strategies altered by the age, race and gender of various populations with PAD and aortic disease?

What are the most effective pharmacologic, device and behavioral *TREATMENTS* for various stages of vascular disease?

- What are the appropriate applications for non-invasive and invasive treatments for PAD and aortic disease?
- What are and how are the optimum clinical, quality of life, economic outcomes, etc. goals determined for these patients?

General Award Information

Duration**:** 4 years with the opportunity for up to a 12-month No-Cost Extension.

Award Amount**:** The maximum budget amount an applicant may request is $3,709,200. The AHA reserves the right to determine the final award amount for competitive projects based on need and potential impact.

Number of Awards: Three to Five* Centers will be awarded. Awards will be selected based on merit.
* The AHA reserves the right to determine the final number of awardees.

Appropriate Budget Items**:**

- Salary and fringe benefits of the Center Director, Training Director, Principal Investigators, three named fellows, collaborating investigator(s), and other participants with faculty appointments.
- Project-related expenses, such as salaries of technical personnel essential to the conduct of the project, supplies, equipment, travel, and publication costs in accordance with institutional and AHA policies

- 10% institutional indirect costs may be claimed by one institution.

It is expected that each Center will earmark a percentage of their award (% of direct costs) to use toward collaborative efforts according to the schedule below:

- Year 1: 5% ($42,150)
- Year 2: 7% ($59,010)
- Year 3: 7% ($59,010)
- Year 4: 10% ($84,300)

Collaborative efforts must be detailed in each annual scientific progress report. Money can be set aside as a specific budget line item, or line items may be earmarked or tagged as collaborative expenses (for example, travel funds can be considered collaborative efforts).

Examples of collaboration include but are not limited to:

- sending fellow or PI to another center in Network to learn a technique/skill
- collaborating with Network investigator on new or tangential project or publication
- hosting Network fellows for relevant symposium

The Awardee will be responsible for overseeing the total budget for his/her grant. If awarded, the principal investigator 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.

Data Source: Applications can include data from any source but must be cardiovascular disease or stroke- related.

Award Assessment**:** Awardees must report progress on a minimum annual (once per year) basis. Progress may take the form of written reports, video conferencing, phone calls, and/or face to face visits. Reporting will be focused on achievement of stated milestones as indicated in the project timeline. The Oversight Advisory Committee reserves the right to request additional updates, site visits, or reporting.

Annual Meetings: Awardees (Directors, PIs, and named fellows) are required to attend the Network Annual Meetings and budget for travel from the grant, accordingly.

Application Submission

Applications must be submitted using the AHA's online submission portal available at Grants@Heart.

For explicit Application Instructions, visit the AHA SFRN Webpage.

Peer Review

Criteria:
Each **PROJECT** application will be scored individually according to the criteria below.

- Approach

- Innovation
- Investigator
- Significance
- Environment
- Impact

The **CENTER** application scoring is based on the criteria below.

- Synergy
- Collaboration
- Training Component
- Center Team
- Center Director
- Investigator Team
- Environment

Process:
Peer Review – two phases of face-to-face Peer Review, approximately 4-5 weeks apart.

- Phase I – review science/projects
- Phase II (reverse site visit) – Synergy and Centers

For more information on Peer Review, including criteria and information on reverse site visits, see SFRN General Information page on the AHA SFRN website.

An applicant is prohibited from contacting AHA peer reviewers. This is a form of scientific misconduct and will result in removal of the application from funding consideration and institutional notification of misconduct.

Relevant Policies

Open Science Policies:

Public Access: The AHA requires that all journal articles resulting from AHA funding be made freely available in PubMed Central within 12 months of publication. It will be the responsibility of the author to ensure this occurs.

Open Data: Any research data that is needed for independent verification of research results must be made freely and publicly available in an AHA approved repository within 12 months of the end of the funding period (and any no-cost extension). Please see AHA's Open Science Policy page.

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 AHA research award policies and guidelines for the duration of any awards they may receive. To review AHA policies, go to AHA's Policies Governing All Research Awards.

Award Selection and Other Policies

Final funding recommendations will be approved by the AHA.

For all other relevant policies and Frequently Asked Questions, please see the SFRN Application Information website.