

# Career Development Award

## Program Description, Eligibility and Peer Review Criteria

### **Application Deadline: December 4, 2017**

*The application must be submitted by 5 p.m. Central Time in [Grants@Heart](mailto:Grants@Heart) on the deadline date. The application will be submitted to the designated grant officer, who will submit it to the American Heart Association (AHA).*

### **Award Activation: July 1, 2018**

### Statement of Purpose

Supports highly promising healthcare and academic professionals, in the early years of one's first professional appointment, to explore innovative questions or pilot studies that will provide preliminary data and training necessary to assure the applicant's future success as a research scientist in the field of cardiovascular and stroke research.

The award will develop the research skills to support and greatly enhance the awardee's chances to obtain and retain a high quality cardiovascular and/ or stroke career position.

### Science Focus

Research broadly related to cardiovascular function and disease and stroke, or to related clinical, translational, behavioral, population or basic science, bioengineering or biotechnology, and public health problems, including multidisciplinary efforts.

### Disciplines

AHA awards are open to the array of academic and health professionals. This includes but is not limited to all academic disciplines (biology, chemistry, mathematics, technology, physics, etc.) and all health-related professions (physicians, nurses, advanced practice nurses, pharmacists, dentists, physical and occupational therapists, statisticians, nutritionists, behavioral scientists, engineers, etc.).

Clinical, translational, population, behavioral, and basic scientists are encouraged to apply. AHA maintains dedicated Peer Review Committees by science type and subject. The applicant will be required to select the desired review group (URL to current PR committee or list of committee topics).

AHA strongly encourages applications by women, underrepresented minorities in the sciences, and those who have experienced diverse and non-traditional career trajectories.

### Target Audience

At the time of application, the applicant must hold an M.D., Ph.D., D.O., D.V.M., D.D.S., or equivalent post-baccalaureate doctoral degree.

At the time of award activation:

- Must hold a faculty/staff position up to and including the rank of assistant professor (or equivalent).
- No more than four years may have elapsed since the first faculty/staff appointment (after receipt of doctoral degree) at the assistant professor level or equivalent (including, but not limited to, instructor, research assistant professor, research scientist, staff scientist, etc.).
- Applications may be submitted for review in the final year of a postdoctoral research fellowship or in the initial years of the first faculty/staff appointment.
- While no minimum percent effort is required, the applicant must demonstrate that adequate time will be devoted to ensuring successful completion of the project.

## Citizenship

At the *time of application*, must have one of the following designations:

- United States citizen
- Permanent resident
- Pending permanent resident (any resident who has an approved I-765 form and has submitted an I-485 application with the United States Citizenship and Immigration Services).
- E-3 - specialty occupation worker
- H-1B Visa - temporary worker in a specialty occupation. Note: You must have an H-1B or equivalent by the award activation date. If the H-1B or equivalent is not received by the award activation date, the award must be relinquished.
- J-1 Visa - exchange visitor. Note: You must have an H-1B or equivalent by the award activation date. If the H-1B or equivalent is not received by the award activation date, the award must be relinquished.
- O-1 Visa - temporary worker with extraordinary abilities in the sciences.
- TN Visa – North American Free Trade Agreement (NAFTA) professional.
- G-4 Visa - family member of employee of international organizations.

The awardee must maintain one of the designations listed above throughout duration of the award.

## Eligible Sponsoring Institution

American Heart Association research awards are limited to U.S.-based non-profit institutions, including medical, osteopathic and dental schools, veterinary schools, schools of public health, pharmacy schools, nursing schools, universities and colleges, public and voluntary hospitals and others that can demonstrate the ability to conduct the proposed research.

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, except for Veterans Administrations employees.

## Requirements

**Mentoring Team:** The award requires, at a minimum, a primary mentor and a secondary mentor

who will provide counsel and direction and scholarship oversight. Up to three additional mentors may be named to the mentoring team. A mentoring team approach with a committed lead mentor is an essential piece. Applicants should clearly define each person's role as part of the mentoring team.

The primary and secondary mentors should have, most importantly, prior history of successfully mentoring early career investigators to independence, track records of high quality investigation, academic accomplishment, and should be invested in the career progress of the early career scientist. The mentors' primary function is to work with the applicant to develop the application and training plan, make necessary arrangements with the institution to conduct the proposed research work, enforce the appropriate timelines for accomplishment of the work, and guide the awardee toward a productive career in his/her chosen field.

- One individual must be identified as the primary mentor who will coordinate the candidate's research. The primary mentor should be an active investigator in the area of the proposed research and be committed both to the applicant's career development and to the direct supervision of the applicant's research. The mentors must document the availability of dedicated sufficient research support (e.g. time and effort) and facilities for high-quality research.
- At least one mentor must be from outside of the applicant's institution or department.
- One mentor should be committed to guiding the applicant's future grant writing endeavors (such as, how to write an R01 or equivalent).

**Career Development Plan (3 pages maximum)** – The applicant is required to submit a comprehensive career development plan that includes:

- Primary career intention – AHA does not require this to be a traditional academic research or health profession track. For example, an applicant might wish to pursue a career in industry, technology, teaching, or public health, etc.
- Long-term professional goals (such as positions desired or other specific professional goals, such as 'write a book').
- Explicit short-term goals that contribute to long-term interests and the most important anticipated challenges that must be mitigated/overcome to reach these goals.
- Timeline and 2-3 metrics that will define success in reaching each goal.
- Describe training or experiences you will develop to contribute to and ensure that long term goals are achieved.
- Describe which aspects of your current work/job will be delegated to others in order to accomplish the early career training and tasks necessary to achieve your goals.
- Identify additional skills, knowledge or experience you will need to acquire that may directly or indirectly help you in your current job or future positions, and how you plan to ensure that this occurs.
- Specifically delineate when and how progress assessments/checkpoints will occur, particularly with each member of your mentoring team (e.g., memos, phone calls, meetings) and what developmental activities will be completed or discussed at these times.
- Provide letters of support from each mentoring team member that indicate he/she understands his/her role and commitment to you as the early career investigator.

**Resources** -- While AHA does not endorse a particular resource, the following are offered for applicants' reference:

How and Why to Write a Career Development Plan | Robert Half

<https://www.roberthalf.com/blog/how-and-why-to-write-a-career-development-plan>

## **Proposed Research Plan (12 pages maximum)**

### **1. Specific Aims**

Provide a clear, concise summary of the aims of the work proposed and its relationship to your long-term goals. State the hypothesis to be tested.

### **2. Background and Significance**

Sketch the background leading to this application. Summarize important results outlined by others in the same field, critically evaluating existing knowledge. Identify gaps that this project is intended to fill.

State concisely the importance and relevance of the research to cardiovascular function or disease, stroke, or to related fundamental problems. Also, it is incumbent upon the applicant to make a clear link between the project and the mission of the AHA. The significance section will be assessed in terms of potential impact on the AHA mission; this will be factored into the overall priority score as noted in the peer review criteria.

### **3. Preliminary Studies**

Describe concisely previous work related to the proposed research by the applicant that will help to establish the experience and competence of the investigator to pursue the proposed project. Include pilot studies showing the work is feasible. (If none, so state.)

### **4. Research Design and Methods**

Description of proposed tests, methods or procedures should be explicit, sufficiently detailed, and well defined to allow adequate evaluation of the approach to the problem. Describe any new methodology and its advantage over existing methodologies.

Clearly describe overall design of the study, with careful consideration to statistical aspects of the approach, the adequacy of controls, and number of observations, as well as how results will be analyzed. Include details of any collaborative arrangements that have been made.

Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims.

Note: If a proposed research project involves human subjects, the population sampled shall be inclusive of the general population, of relevance to the scientific question posed, without restriction in regard to gender, race, age, and socioeconomic status. Proposals that intentionally restrict the population sampled must include a compelling scientific rationale for such research design. Be sure to address this topic.

### **5. Ethical Aspects of the Proposed Research**

Describe any special consideration you have given to all ethical issues involved in your proposed investigations (biohazards or human subjects, etc.), identifying risks and management. Be sure to address this topic. If using animals, visit the [Vertebrate Animal Subjects instructions](#). Discuss the nature of the informed consent that will be obtained if the research involves human subjects. If the proposed project involves no ethical questions, indicate "5: NONE".

## Budget

### **Award:**

\$77,000 per year, including 10% institutional indirect costs.

The award may be used for salary and fringe benefits of the principal investigator, collaborating investigator(s), mentoring team members, and other participants with faculty appointments, consistent with percent effort, and for project-related expenses, such as salaries of technical personnel essential to the conduct of the project, supplies, equipment, computers/electronics, travel (including international travel), volunteer subject costs, and publication costs, etc.

### **Award Duration:**

Three years. Non-renewable.

### **Total Award Amount:**

\$231,000

## Restrictions

- The applicant may submit only one Career Development Award application per deadline.
- The applicant may not be a current or prior recipient of an AHA Scientist Development Grant (affiliate or association-wide).
- The awardee may not hold a comparable award as a source of supplementation.
- The awardee may not be a current recipient of any training award, such as the National Institutes of Health Mentored K-series award or the AHA Postdoctoral Fellowship.
- The applicant may submit the same or similar application three times (the original plus two resubmissions). The same or similar application submitted the fourth time will be administratively withdrawn.
- A Career Development awardee may also hold an AHA Innovative Project Award or Transformational Project Award, and may be the program director or sponsor on an AHA Institutional Research Enhancement Award (AIREA).
- Strategically Focused Research Network personnel may hold individual AHA awards.

## Peer Review Criteria

*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.*

No Letter of Intent is required nor accepted for Career Development Award applications.

To judge the merit of the application, reviewers will comment on the criteria below. The applicant should fully address each of these in the proposal.

1. Research Plan – particularly significance of project and feasibility of approach (1/3 of score)
2. Investigator and Environment (1/3 of score)
3. Mentorship and Career Development Plan (1/3 of score)

### **Research Plan (1/3 of score)**

**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? How will the acquisition and analysis of data during this early career award facilitate the successful transition to independence of the early career investigator toward successful future research funding and independence?

**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? The assessment of preliminary data should be put into perspective so that bold new ideas and risk-taking by the beginning investigators are encouraged rather than stymied. Does the applicant acknowledge potential challenges and problem areas and consider alternative tactics and mitigation? Will the training and experience attained during this mentored project support and promote a pathway to independence as a research scientist in the field of cardiovascular and/or stroke research.

For all applications that include vertebrate animals or human subjects, applicants must explain how relevant biological variables, such as sex and age, are factored into the research design, analysis and reporting. Furthermore, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex or a specific age group.

**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?

**Impact:** How does this project relate to and support the mission of the American Heart Association to **building healthier lives, free of cardiovascular diseases and stroke**? How does the training and experience supported by this award ensure that the early career scientist will progress to success in funding and independence as a career research investigator?

### **Investigator and Environment (1/3 of score)**

**Investigator:** Is the investigator appropriately trained, productive, 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)? Does the Investigator have a record of diligence, commitment, and productivity that warrant support as an early career investigator?

**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 as demonstrated in the department head letter? Does the mentorship team have experience and success mentoring early career investigators to independence?

### **Mentorship and Career Development Plan (1/3 of score)**

#### **Mentoring Team**

1. Do the mentors have the experience to direct the proposed research training, as evidenced by a track record regarding productivity, funding and prior trainees?
2. Does the primary mentor demonstrate familiarity with the applicant's career and developmental goals and provide a comprehensive training plan that supports the applicant's progress towards his/her career development plan?
3. Is an appropriate level of time, effort, funding and involvement proposed for the mentoring component?
4. Is there a contingency plan for mentors, if they cannot fulfill their contract for mentorship to the early career investigator?

**Career Development Plan**

1. Is the candidate's career development plan, both during the award and afterwards, of high quality and sufficient feasibility?
2. Do the structured activities meet the applicant's long- and short-term career goals?
3. Are appropriate timelines and metrics of success planned for the candidate's progress?
4. Is there a mitigation plan if timelines and metrics are not fulfilled on time?
5. Is there a satisfactory and appropriate relationship of the research plan to the career development goals and the candidate's previous experience?