



American Heart Association and Children's Heart Foundation Request for Applications (RFA)

Congenital Heart Defects Research Awards (CHDRAs)

Key Dates

RFA Posted:	June 2019
Application Deadline:	Sept 19, 2019
Peer Review:	Nov 2019
Notification of Awards:	Dec 2019
Award Start Date:	Jan 1, 2020

Award Objectives and Characteristics Announcement

The American Heart Association (AHA) and The Children's Heart Foundation (CHF) announce this joint Request for Applications (RFA) to fund the AHA/CHF Congenital Heart Defect Research Awards (CHDRAs).

Purpose

The AHA and CHF share common priorities and interests in investing in congenital heart defects (CHD) research.

CHF was founded in 1996 and is the country's leading national organization solely committed to funding CHD research. The mission of CHF is to fund the most promising research to advance the diagnosis, treatment, and prevention of CHDs. Since its inception, CHF has funded millions of dollars of research across the U.S. and Canada.

The AHA was founded in 1924 and is a catalyst for achieving maximum impact in equitable health and well-being in the United States and around the world. The AHA has invested more than \$4.3 billion in research, making it the largest private not-for-profit funder of cardiovascular and stroke research outside the federal government. The mission of the AHA is to be a relentless force for a world of longer, healthier lives.

Topics of Interest, Specific Questions and Criteria for this Grant Opportunity

The following are illustrative descriptions of overarching themes that can be addressed by applicants. Successful applications will address at least one of the issues below or an alternate topic of equal importance.



American
Heart
Association.



AHA/CHF co-funded research should meet the following attributes:

1. Mission aligned: CHF's mission is to fund the most promising research to advance the diagnosis, treatment and prevention of congenital heart defects. Research topics of interest include, but are not limited to:
 - a. Wide-reaching impact to a significant number of CHD patients (not research that targets low-incidence CHDs with little or no crossover to other CHDs)
 - b. Life-saving or life-changing outcomes with potential to improve mortality and morbidity
 - c. Breakthrough advancements of new or significant improvements for CHD diagnosis, treatment, and prevention
 - d. Early funding for promising research to allow for future funding from larger granting agencies (for example, NIH, AHA)
 - e. Potential preliminary data necessary to advance clinical trials and device innovation/approval
 - f. High potential for impact, including publications, national presentations, and advancement of the field
2. Focus on clinical cardiology, basic science, population science, and advancement of surgical/interventional techniques, including, but not limited to the following areas:
 - a. Genetics
 - b. Biochemistry
 - c. Pharmacology
 - d. Neurodevelopment and functional outcomes
 - e. Communication with and education and support of CHD families
 - f. Quality and policy regarding delivery of care, coverage, and access
 - g. Maternal environment and modifiable disease impact on fetuses with CHD
 - h. Fetal diagnosis and intervention
 - i. Devices and procedural research (cardiac catheterization and surgery) for the large population of infants and children undergoing complex operations, including but not limited to:
 - functional single ventricle
 - associated morbidity and mortality
 - improved interventional planning/execution
 - j. Long-term care of adults with congenital heart defect



American
Heart
Association.



Funding Mechanisms available for this RFA:

Predoctoral Fellowship (Appendix A)

Postdoctoral Fellowship (Appendix B)

Career Development Award (Appendix C)

Transformational Project Award (Appendix D)

*The AHA and CHF reserve the right to determine the final number of awardees for each program category.

Subjects/Study Cohorts: All proposed studies with human subjects must include under-represented racial and ethnic groups (UREGs) and must include both genders. Applicants must provide solid rationale for the non-use of UREGs and both genders in their subject populations.

For clinical and/or population projects enrolling human subjects, it will be important to design studies that incorporate both realistic recruitment goals and sufficient statistical power to ensure valid results.

Features of All Research Awards

- Awards are open to an array of academic and health professionals. This includes but is not limited to all academic disciplines (biology, chemistry, mathematics, technology, physics, bioengineering, etc.) and all health-related professions (physicians, nurses, nurse practitioners, pharmacists, physical and occupational therapists, statisticians, nutritionists, etc.).
- 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 Administration employees.
- Clinical, translational, population, and basic scientists are encouraged to apply. There will be a dedicated Peer Review Committee for this specific initiative.
- Applications from women, people in ethnic and racial groups underrepresented in science, and those who have experienced varied and non-traditional career trajectories are strongly encouraged.



American
Heart
Association.



- Fellowship awardees are expected to devote at least 80 percent of full-time work either to research or to activities pursuant to independent research. For project grants, no minimum percent effort is specified; however, the Principal Investigator must demonstrate that adequate time will be devoted to ensuring successful completion of the project.
- Project grants are transferrable to make the awardee a "free agent" who is empowered to move to another qualified institution while retaining the award.
- Project grant budgets (i.e., non-fellowship awards) are unrestricted among allowable categories (salary/fringe of PI and essential personnel, supplies, equipment/computers, travel, human subjects' reimbursements, publication costs, etc.).
- Funds may be re-budgeted between categories without prior approval.
- An individual may hold more than one AHA-funded award concurrently but may hold only one career development/recognition award (e.g., Career Development Award).

Applications are created, submitted, and reviewed through the [Grants@Heart](#) electronic system. Grants@Heart is a web-based system for application preparation, submission, peer review and awards management. The system is available 24/7.

Relevant Policies:

Public Access: The AHA's public access policy requires that all journal articles resulting from AHA funding be made freely available in PubMed Central (PMC) and attributed to a specific award within 12 months of publication. It is the responsibility of the awardee to ensure journal articles are deposited into PMC.

Open Data: Any factual 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). We also strongly encourage awardees to post their data to AHA's Institute for Cardiovascular Precision Medicine Precision Medicine Platform (<https://precision.heart.org/>). Recipients of the following early-career awards are exempt from this policy: Predoctoral Fellowships, Postdoctoral Fellowships.

For more information on the above policies, see AHA's [Open Science Policy](#) webpage.

Other: 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. Visit the Research Programs Awards Policies page for more information on this topic: [AHA Policies Governing All Research Awards](#)



American
Heart
Association.



Award Selection:

Final funding recommendations will be approved by the AHA and CHF.

Interim Assessment: Awardees will be required to report scientific progress on a minimum annual (once per year) basis. Reporting will be focused on achievement of stated aims and milestones as indicated in the project proposal. The AHA and CHF reserve the right to request additional updates or reporting.

Application Submission

All applications must be submitted using the online submission portal available at Grants@Heart. For specific Application Instructions, visit the [Applicant Instructions](#) page.

Deadline: September 19, 2019

Applications must be received no later than 5 p.m. Central Time on the deadline date. The system will shut down at 5 p.m. Central. **Early submission is encouraged**. Your institutional Grants Officer (GO) has the final responsibility of submitting your completed application to the Grants@Heart system. It is important that you check with your GO for his/her internal deadline.

The following information is applicable to all programs/funding opportunities:

- [Supporting Documents \(opens in a new window\)](#) lists the required uploads for each program.
- View the detailed [Applications Instructions \(PDF\)](#).
- Each applicant must be an AHA Professional Member.
Join or renew when preparing an application in Grants@Heart, [online](#), or by phone at 301-223-2307 or 800-787-8984. Membership processing takes 3-5 days; do not wait until the application deadline to renew or join.
- [Supported Web Browsers \(PDF\)](#)

Note: in addition to the four funding mechanisms offered via this joint AHA-CHF Request for Applications, the AHA has an additional program that might be of interest to applicants: Please visit this link for more information on the [Collaborative Sciences Award](#). Letter of Intent Deadline for the Collaborative Sciences Award is October 8, 2019.



Appendix A - Predoctoral Fellowship

Statement of Purpose: To enhance the integrated research and clinical training of promising students who are matriculated in pre-doctoral or clinical health professional degree training programs and who intend careers as scientists, physician-scientists or other clinician-scientists, or related careers aimed at improving global cardiovascular health.

Target Audience

At the *time of application*, the applicant must be:

- enrolled in a post-baccalaureate Ph.D., M.D., D.O., D.V.M., Pharm.D., D.D.S., DrPH, or Ph.D. in nursing or equivalent clinical health science doctoral degree program, who seeks research training with a sponsor prior to embarking upon a research career.
- a full-time student working towards his/her degree.

At the *time of award activation*, the candidate must have completed initial coursework and be at the stage of the program where he/she can devote full-time effort to research or activities related to the development into an independent researcher or a related career aimed at improving global cardiovascular health.

Sponsor

It is imperative that the fellow receives counsel and direction from a sponsor who is an established investigator (as outlined in the peer review criteria for the sponsor/training plan below) interested in the progress of the project.

A fellow must have primary responsibility for the writing and the preparation of the Fellowship application, understanding the sponsor will play a significant part in providing guidance to the applicant.

Institutions are strongly encouraged to develop and use Individual Development Plans (IDPs) for funded training programs. IDPs provide a structure for the identification and achievement of career goals. The student's career goals as stated in "Part A - Personal Statement" of the fellow's biosketch and the sponsor's training plan must be complementary to one another and focused specifically on the individual. A standardized training plan will not be viewed favorably.

Citizenship

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

- U.S. 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 Visa - specialty occupation worker



American
Heart
Association.



- H1-B Visa - temporary worker in a specialty occupation
- F-1 - student visa
- J-1 Visa - exchange visitor
- 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
- DACA - Deferred Action for Childhood Arrivals. This status requires additional AHA approval to apply. Send an email to Apply@Heart.org with an explanation of your status and a statement of support from your sponsor.

Applicants are not required to reside in the United States for any period before applying for American Heart Association funding. An awardee must maintain one of the designations listed above throughout the duration of the award.

Budget

AHA does not pay indirect costs on fellowships.

Annual Stipend – matches the NIH scale for predoctoral fellows

2019: \$24,816, plus \$4,200 per year for health insurance. Note: Stipend may be used to further supplement health insurance cost, however, the health insurance allowance may not be used for any other purpose.

Project Support

\$2,000 per year, in addition to the stipend. (No limit on any line item (travel, computer, equipment, etc.). International travel is permitted and does not require prior AHA approval.

Award Duration

Two years

Restrictions

- An applicant may submit only one Predoctoral Fellowship application per deadline.
- A Predoctoral Fellowship student may hold only one fellowship award at a time.
- This award is not for individuals of faculty/staff rank.
- A Predoctoral Fellowship awardee may not hold another AHA award concurrently. However, the student may apply for a Postdoctoral Fellowship in the last year of the Predoctoral Fellowship.
- The awardee may not hold a comparable award as a source of supplementation. An applicant who receives funding, but has an ongoing training grant from another source, may defer the start of this award up to six months to complete the existing fellowship. Prior approval is required.



American
Heart
Association.



- The sponsor/co-sponsor may supervise no more than two AHA-funded Predoctoral Fellows and two AHA-funded Postdoctoral Fellows at the same time concurrently. Fellows who are part of an AHA Strategically Focused Research Network are excluded.
- Submission of an application with identical or significantly similar content as a submission by another investigator is prohibited. Also, the submission of an application with identical or significantly similar content from a sponsor to a grant program and his/her fellow to fellowship program is prohibited. In such cases, both applications may be removed from funding consideration. If a grant application is submitted by the sponsor of a fellowship application, both applications may be funded if there is no duplication of aims.

Peer Review Criteria

An applicant is prohibited from contacting 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.

To judge the merit of the application, reviewers will comment on the following criteria. Please address these in your proposal. Each criterion will account for one-third of the overall score.

Criterion 1 – Evaluation of the Applicant

1. Does the applicant have potential for a research career?
2. Are the applicant's career plans specified in the application?
3. Is this supported by the applicant's academic record and the assessment provided by the three letters of reference?
4. Does the applicant have prior research experience and/or publications?
5. Is there a clear rationale supporting the need for the proposed training?
6. What is the sponsor's assessment of the applicant?

Criterion 2 – Sponsor/Training Plan and Environment

Because the applicant receives only a stipend from the award, additional monetary support **MUST** come from the sponsor's laboratory. Therefore, the proposal will likely be related to the sponsor's currently-funded work. The sponsor should clarify the role the applicant played in developing the proposal, the relationship of the proposal to ongoing work in the sponsor's laboratory, and how the project will contribute toward the applicant's training and career development.

Sponsor and Training Plan

1. Is the sponsor an independent investigator?
2. Does the sponsor have the experience to direct the proposed training, as evidenced by a track record regarding productivity, funding and prior students?
3. Does the sponsor have adequate current funding to support the applicant?



American
Heart
Association.



4. Does the sponsor demonstrate familiarity with the applicant's career and developmental goals and provide a comprehensive training plan that supports progress towards the applicant's career plans, which should be outlined in the Personal Statement section of the applicant's biosketch?

Environment

1. Does the environment in which the work will be done contribute to the probability of success of the training experience?
2. Is there evidence of institutional commitment?

Criterion 3 - Evaluation of the Proposal

This section should provide a summary of the proposal, no longer than five pages: A thoughtfully planned, systematic proposal aimed at clearly answering an investigative question in cardiovascular and/or stroke health research. It should be completed in collaboration with the proposed sponsor.

Note: The proposal will be assessed on the scientific merit, but equally as an integral part of the candidate's development into a career aligned with CHF and AHA's mission.

A new fellow may not have had adequate time to generate preliminary data; therefore, applicants may present preliminary data generated by the sponsor. The assessment of preliminary data, whether generated by the sponsor or the applicant, should be put into perspective so that bold new ideas and risk taking by beginning investigators are encouraged rather than stymied.

1. Is the proposed work appropriate for the applicant, given his/her academic background, experience and career interests? Does the proposal contain the right balance of challenge, importance of the research question, and feasibility in relation to the applicant's experience and training?
2. Does the proposed project summary:
 - o Include a specific hypothesis and describe the applicant's role on the proposal;
 - o Provide a concise account of the subject matter, an overview of each part of the proposal, specific project aims and the methodology;
 - o Reflect the significance of the proposal.
 - o For all applications that include vertebrate animals or human subjects, applicants must explain how relevant biological variables, such as sex, 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.
3. Impact: How effectively does the applicant describe for an audience without a science background how this proposal will impact the CHF and AHA's mission? Consider the



American
Heart
Association.



section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA. Evaluation of this criterion should be influenced by the lay summary section of the application and any lay reviewers' impressions.



American
Heart
Association.



Appendix B – Postdoctoral Fellowship

Statement of Purpose: To enhance the integrated research and clinical training of postdoctoral applicants who are not yet independent. The applicant must be embedded in an appropriate research group with the mentorship, support, and relevant scientific guidance of a research sponsor.

Recognizing the unique challenges that clinicians, in particular, experience in balancing research and clinical activity, this award mechanism aims to be as flexible as possible to enable applicants to develop academic careers in research alongside fulfilling clinical service commitments.

Target Audience

- At the time of award activation, the applicant must hold a post-baccalaureate Ph.D. degree or equivalent, or a doctoral-level clinical degree, such as M.D., D.O., D.V.M., Pharm.D., Dr.Ph, Ph.D. in nursing, public health, or other clinical health science., or equivalent clinical health science doctoral student who seeks research training with a sponsor prior to embarking upon a research career.
- At the time of award activation, the awardee may not be pursuing a doctoral degree.
- At the time of award activation, the applicant may have no more than five years of research training or experience since obtaining a post-baccalaureate doctoral-level degree (excluding clinical training).
- The awardee will be expected to devote at least 80 percent of full-time work either to research or to activities pursuant to independent research (instead of administrative, clinical duties that are not an integral part of the research training program or teaching responsibilities).
- This award is not intended for individuals of faculty rank.

Exceptions:

- M.D. or M.D./Ph.D. with clinical responsibilities who needs instructor or similar title to see patients, but who will devote at least 80% full-time to research training.
- R.N./Ph.D. with clinical appointment. Awardee will be expected to devote his/her time to research or activities directly related to the development into an independent researcher. All other eligibility criteria apply.

Sponsor

It is imperative that the fellow receive counsel and direction from a sponsor who is an established investigator (as outlined in the peer review criteria for the sponsor/training plan below) invested in the progress of the project.

A fellow must have primary responsibility for the writing and the preparation of the application, understanding the sponsor will play a significant part in providing guidance to the applicant.



American Heart Association.



Institutions are strongly encouraged to develop and use Individual Development Plans (IDPs) for funded training programs. IDPs provide a structure for the identification and achievement of career goals. The trainee’s career goals, as stated in “Part A – Personal Statement” of the fellow's biosketch, and the sponsor’s training plan must be complementary to one another and focused specifically on the individual. A standardized training plan will not be viewed favorably.

Citizenship

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

- U.S. 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 Visa - specialty occupation worker
- F1 Visa - student
- H1-B Visa - temporary worker in a specialty occupation
- J-1 Visa - exchange visitor
- 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
- DACA - Deferred Action for Childhood Arrivals status requires additional AHA approval to apply. Send an email to apply@heart.org with an explanation of your status and a statement of support from your sponsor.

Applicants are not required to reside in the United States for any period before applying for American Heart Association funding. An awardee must maintain one of the designations listed above throughout the duration of the award.

Budget

AHA does not pay indirect costs on fellowships.

Annual Stipend - Matches NIH sliding scale, as follows:

Postdoctoral Stipend levels for FY2019

Years of Experience	Stipend
0	\$50,004
1	\$50,376
2	\$50,760
3	\$52,896
4	\$54,756
5	\$56,880



American
Heart
Association.



Years of Experience

6

7 or more

Stipend

\$59,100

\$61,308

Plus: \$10,850 per year for health insurance. Note: Stipend may be used to further supplement health insurance cost, however, the health insurance allowance may not be used for any other purpose.

Project Support

\$3,000 per year, in addition to the stipend. No limit on any line item (travel, computer, equipment, etc.). A minimum of \$1,500 per year must be spent on travel to a national conference (attendance of AHA Scientific Sessions is strongly encouraged). International travel is permitted and does not require prior AHA approval.

Award Duration

Two years. May apply for a second two-year award. All eligibility criteria apply. Maximum of four years of postdoctoral fellowship support per individual.

Restrictions

- An applicant may submit only one Postdoctoral Fellowship application per deadline.
- A Postdoctoral Fellow may hold only one fellowship award at a time.
- The awardee must resign the award if promoted to a staff or faculty position. However, an awardee with a faculty position remains eligible for this award if that awardee maintains clinical responsibilities under the supervision of an instructor.
- A Postdoctoral Fellow may not hold another AHA award concurrently. However, the awardee may submit an application for a subsequent AHA award during the last year of the project, and must resign the Postdoctoral Fellowship if another AHA award is activated.
- The awardee may not hold a comparable award as a source of supplementation. An applicant who receives funding via this initiative, but has an ongoing training grant from another source, may defer the start of this award up to six months in order to complete the existing fellowship. Prior approval is required. Supplementation from other sources to meet the sponsoring institution's stipend and benefit levels is allowed.
- The sponsor/co-sponsor may supervise no more than two AHA-funded Predoctoral Fellows and two AHA-funded Postdoctoral Fellows at the same time. Fellows who are part of an AHA Strategically Focused Research Network are excluded.
- A delay of the award start date may be allowable up to six months.

Submission of an application with identical or significantly similar content as a submission by another investigator is prohibited. Also, the submission of an application with identical or significantly similar content from a sponsor to a grant program and his/her fellow to fellowship program is prohibited. In such cases, both applications may be removed from funding consideration. If a grant application is submitted by the sponsor of a fellowship application, both applications may be funded if there is no duplication of aims.



American
Heart
Association.



Peer Review Criteria

An applicant is prohibited from contacting AHA and CHF 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.

To judge the merit of the application, reviewers will comment on the following criteria. Address these in your proposal. Each criterion will account for one-third of the overall score.

Criterion 1 - Evaluation of the Applicant

1. Does the applicant have potential for a research career?
2. Are the applicant's career plans specified in the application?
3. Is this supported by the applicant's academic record and the assessment provided by the three letters of reference?
4. Does the applicant have prior research experience and/or publications?
5. Is there a clear rationale supporting the need for the proposed training?
6. What is the sponsor's assessment of the applicant?

Criterion 2 - Sponsor/Training Plan and Environment

Because the fellow receives only a stipend from the award, additional monetary support for the proposed work MUST come from the sponsor's laboratory. Therefore, the proposal will likely be related to the sponsor's currently-funded work. The sponsor should clarify the role the applicant played in developing the proposal, the relationship of the proposal to ongoing work in the sponsor's laboratory, and how the proposal will contribute toward the training and career development of the applicant.

Sponsor/Training Plan

1. Is the sponsor an independent investigator?
2. Does the sponsor have the experience to direct the proposed training, as evidenced by a track record regarding productivity, funding and prior trainees?
3. Does the sponsor have adequate current funding to support the applicant's project?
4. Does the sponsor demonstrate familiarity with the applicant's career and developmental goals and provide a comprehensive plan that supports the applicant's career goals, which should be outlined in the Personal Statement section of the applicant's biosketch?
5. Is there a plan for instruction in the responsible conduct of research, taking into account the specific characteristics of the training program, the level of trainee experience, and the particular circumstances of the trainees? The reviewers will evaluate the adequacy of the proposed training in relation to the following: A sufficiently broad selection of subject matter, such as conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, research ethics. AHA does not require submission of the NIH RCR form.



American
Heart
Association.



Environment

1. Does the scientific environment in which the work will be done contribute to the probability of a successful learning experience?
2. Is there evidence of institutional commitment?

Criterion 3 - Evaluation of the Proposal

This section should provide a summary of the proposal no longer than five pages: A thoughtfully planned, systematic proposal aimed at clearly answering an investigative question in cardiovascular and/or stroke research. It should be completed in collaboration with the proposed sponsor.

Note: The proposal will be assessed on the scientific merit, but equally as an integral part of the applicant's development into a career aligned with CHF and AHA's mission.

A new fellow may not have had adequate time to generate preliminary data; therefore, applicants may present preliminary data generated by the sponsor. The assessment of preliminary data, whether generated by the sponsor or the applicant, should be put into perspective so that bold new ideas and risk taking by beginning investigators are encouraged rather than stymied.

1. Is the proposed work appropriate for the applicant, given his/her academic background, experience and career interests? Does the proposal contain the right balance of challenge, importance of the research question, and feasibility in relation to the applicant's experience and training?
2. Does the proposed project summary:
 - o Include a specific hypothesis and describe the applicant's role;
 - o Provide a concise account of the subject matter, an overview of each part of the proposal, specific aims and the methodology;
 - o Reflect the significance of the project.
 - o For all applications that include vertebrate animals or human subjects, applicants must explain how relevant biological variables, such as sex, 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.
3. How effectively does the applicant describe for an audience without a science background how this proposal will impact the CHF and AHA's mission? Consider the section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA. Evaluation of this criterion should be influenced by the lay summary section of the application and any lay reviewers' impressions.



American
Heart
Association.



Appendix C – Career Development Award

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.

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

Target Audience

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

- Postdoctoral fellows are eligible to apply and must have attained faculty appointment by the time of award activation.
- The AHA will permit a Career Development Awardee to concurrently hold an NIH K award, if there is no budgetary overlap. NIH K99/R00 awardees may apply if they will be in the R00 stage of the award at time of Career Development Award activation.

At the time of award activation:

- An awardee must hold a faculty/staff position up to and including the rank of assistant professor (or equivalent).
- No more than five 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.).
- 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.



American
Heart
Association.



- 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.

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 two 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 assist in coordination of 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 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 – it is not required for 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').



American
Heart
Association.



- 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 a particular resource is not endorsed, 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>

Guide to Writing a Career Development Plan

https://performancemanager.successfactors.com/doc/po/develop_employee/carguide.html

Proposed Research Plan (10 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 the section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA. Also, it is incumbent upon the applicant to make a clear link between the project and the mission of CHF and the AHA. The significance section will be assessed in terms of potential impact on the CHF and AHA's mission; this will be factored into the overall priority score as noted in the peer review criteria.



American
Heart
Association.



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 "NONE".

Budget

\$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



American
Heart
Association.



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).
- Strategically Focused Research Network personnel may hold individual awards.
- In limited cases, a delay of the award start date may be allowable up to six months. Prior approval is required.
- A Career Development awardee may also hold an AHA Collaborative Sciences Award, Innovative Project Award or Transformational Project Award, and may be the program director or sponsor on an AHA Institutional Undergraduate Student Fellowship Program Award or AHA Institutional Research Enhancement Award (AIREA).

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.

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

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



American
Heart
Association.



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?

Investigator and Environment (1/3 of score)

Investigator (applicant): 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? Does the proposal benefit from unique features of the investigative environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support as demonstrated in the department head letter? Does the mentoring team have experience and success mentoring early career investigators to independence?

Research Plan (1/3 of score)

Significance: Does this study address an important problem related to the section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA? 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 the 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 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 proposal? The assessment of preliminary data should be put into perspective so that bold new ideas and risk-taking by 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 becoming an independent investigator?

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



American
Heart
Association.



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 proposal 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 the training and experience supported by this award ensure that the early career investigator will progress to success in funding and independence as a career research investigator?

How effectively does the applicant describe for an audience without a science background how this proposal will impact the mission of CHF and AHA? Consider the section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA. Does the science accelerate the discovery, interpretation and application of scientific knowledge to prevent and/or treat CHD? Evaluation of this criterion should heavily rely on the lay summary section of the application and any lay reviewers' impressions.



American
Heart
Association.



Appendix D – Transformational Project Award

Statement of Purpose

- To support highly innovative, high-impact projects that build on work in progress that could ultimately lead to critical discoveries or major advancements that will accelerate the fields noted in the section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA.
- Research deemed innovative may be built around an emerging paradigm, approaching an existing problem from a new perspective, or exhibit other uniquely creative qualities.
- Successful applications are likely to be those building on strong preliminary data supportive of the hypothesis.
- This program aims to provide funding that should lead to successful competition for additional funding beyond the award period. The principal investigator (PI) is responsible for clearly and explicitly articulating the project's innovation and the potential impact.

Target Audience

At the time of award activation:

- The candidate must hold a post-baccalaureate Ph.D. degree or equivalent, or a doctoral-level clinical degree, such as M.D., D.O., D.V.M., Pharm.D., or Ph.D. in nursing, public health, or other clinical health science.
- This program places no limit on eligibility based on career stage, academic rank or discipline. It requires only evidence of employment at a qualified institution.
- While no minimum percent effort is specified, the principal investigator must demonstrate that adequate time will be devoted to ensuring successful completion of the proposed 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 Visa - specialty occupation worker.
- H1-B Visa - temporary worker in a specialty occupation.
- J-1 Visa - exchange visitor.
- 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.



American
Heart
Association.



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

Budget

Annual Award Amount: \$100,000, including 10 percent indirect costs.

The award may be used for salary and fringe benefits of the principal investigator, collaborating investigator(s), and other participants with faculty appointments, 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. The proposed budget must be justified in the application.

Award Duration: Three years.

Total Award Amount: \$300,000

Restrictions

- Resubmission of a previous Transformational Project Award application is not permitted.
- Resubmission of an application to the former AHA Innovative Research Grant program will not be accepted.
- An applicant may submit a maximum of one Transformational Project Award per deadline.
- In addition, applicants to this program may submit to the Innovative Project Award program, and may submit one investigator-based application (Career Development Award, Established Investigator Award, or AHA Institutional Research Enhancement Award) per fiscal year.
- The Transformational Project Award may be held concurrently with another Association award; however, the projects must have clearly distinct aims, with no scientific or budgetary overlap.
- Transformational Project Awards are not renewable. An awardee may submit an application for a new Transformational Project Award, provided the projects are separate in nature and concept.
- Awards are not intended to supplement or duplicate currently funded work.
- The project submitted may have no scientific or budgetary overlap with other funded work.
- Postdoctoral fellows and others in research training positions at the time of application must obtain a faculty appointment by the award activation date.

Peer Review Criteria

Contacting peer reviewers concerning your application is deemed a form of scientific misconduct and will result in the removal of your application from funding consideration and institutional notification of ethical concerns.



American
Heart
Association.



To judge the merit of the application, reviewers will comment on the following criteria. Please be sure that you fully address these in your proposal.

1. Preliminary Data: Does the proposal build on strong preliminary results that already show a high probability of revealing new avenues of investigation?
2. Innovation: Is this a highly innovative, high impact proposal, based on work in progress, that could ultimately lead to critical breakthroughs or major advancements that will accelerate the field? For example: Does the proposal challenge existing paradigms and present an innovative hypothesis or address a critical barrier to progress in the field? Does the proposal develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area?
3. Impact: Does the proposal have high probability to have a sustained and powerful influence on the field(s)? How does this proposal relate to and support the mission of CHF and the AHA? How effectively does the applicant describe for an audience without a science background how this proposal will impact the CHF and AHA's mission? Consider the section on: Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA. Evaluation of this criterion should heavily rely on the lay summary section of the application and any lay reviewers' impressions.
4. Significance: Does this proposal address an important problem directly related to the Topics of Interest, Specific Questions and Criteria for this Grant Opportunity described earlier in this RFA? If the aims of the application are achieved, will knowledge or clinical practice be significantly impacted? Will there be an effect on the concepts, methods, and technologies that drive this field?
5. Approach: Are the conceptual framework, design, methods and analyses adequately developed, well integrated, well-reasoned and appropriate to the aims of the proposal? Does the applicant acknowledge potential problem areas and consider alternative tactics?
6. Investigator: Is the investigator appropriately trained and well suited to carry out this work even if a new area of investigation? Does the investigative team bring complementary, appropriately qualified, and integrated expertise to the proposal (if applicable)?
7. Environment: Does the environment in which the work will be done contribute to the probability of success? Does the proposal demonstrate that resources will be available to complete the project? Does the proposal benefit from specific features of the environment, or subject populations, or employ useful collaborative arrangements?