



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

Congenital Heart Defects Research Awards (CHDRAs)

Key Dates:

Application Deadline:	Sept 22, 2020 by 3 PM Central time
Peer Review:	Nov 2020
Notification of Awards:	Dec 2020
Award Start Date:	Jan 1, 2021

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.

The Children's Heart Foundation was founded in 1996 and is the country's leading national organization solely committed to funding CHD research. The mission of CHF is to advance the diagnosis, treatment, and prevention of congenital heart defects by funding the most promising research. Since its inception, The Children's Heart Foundation 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.



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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



Funding Mechanisms available for this RFA:

Predoctoral Fellowship (Appendix A)

Postdoctoral Fellowship (Appendix B)

* Note: The Career Development Award and the Transformational Project Award will not be offered for the 2020-2021 funding cycle. They may be offered again in the future.

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.
- Diversity and inclusion are essential components to driving our mission and we strongly encourage applications from women, underrepresented racial and ethnic groups in the sciences, military veterans, people with disabilities, members of the LGBTQ community, and those who have experienced varied and non-traditional career trajectories.



- o Fellowship awardees are expected to devote at least 80 percent of full-time work, either to research or to activities pursuant to independent research.

Applications are created, submitted, and reviewed through the AHA's new electronic system. [Proposal Central](#) 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](#)

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.



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Application Submission

All applications must be submitted using the online submission portal available at [Proposal Central](#). For specific Application Instructions, visit the [Applicant Instructions \(PDF\)](#) page.

Deadline: September 22, 2020 by 3:00 p.m. Central Time

Applications must be received no later than 3 p.m. Central Time on the deadline date. The system will shut down at 3 p.m. Central. **Early submission is encouraged**. The applicant has final responsibility of submitting the completed application to the [Proposal Central](#) system.

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 Proposal Central, [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.



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.

Eligibility:

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/Mentor:

It is imperative that the fellow receives counsel and direction from a mentor 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 mentor 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 mentor'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

Awardees 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).



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- 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 mentor.

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

No indirect costs are paid on fellowships.

Annual Stipend - matches the NIH scale for predoctoral fellows

2020: \$25,320, 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.



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- The sponsor may supervise no more than four AHA-funded fellows (predoctoral and/or postdoctoral) at the same time. This restriction does not apply to co-sponsors. 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 mentor's assessment of the applicant?

Criterion 2 – Mentor/Training Plan and Environment

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

Mentor and Training Plan

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



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4. Does the mentor 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 related to congenital heart defects. It should be completed in collaboration with the proposed mentor.

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 mentor. The assessment of preliminary data, whether generated by the mentor 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?



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Applications for research funding will be assessed for their potential impact on the CHF and AHA's mission, and on the applicant's ability to effectively describe the proposal and its potential outcomes to non-scientists. This potential impact assessment will be based primarily on the Summary for Non-scientists (lay summary) and any lay reviewers' impressions. This assessment will be factored into the Impact peer review criterion, which will account for 5-10% of the overall priority score.



Appendix B – Postdoctoral Fellowship

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

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.

Eligibility:

- 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., D.D.S., 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 mentor 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/Mentor

It is imperative that the fellow receive counsel and direction from a mentor who is an established investigator (as outlined in the peer review criteria for the mentor/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 mentor will play a significant part in providing guidance to the applicant.



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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 mentor’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 mentor.

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

Indirect costs are not paid on fellowships.

Annual Stipend - Matches NIH sliding scale, as follows:

Postdoctoral Stipend levels for FY2020

Years of Experience	Stipend
0	\$52,704
1	\$53,076
2	\$53,460
3	\$55,596
4	\$57,456
5	\$59,580



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Years of Experience

6

7 or more

Stipend

\$61,800

\$64,008

Plus: \$11,850 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.
- An applicant who receives funding, but has an ongoing training grant from another source, may defer the start of this award for 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 may supervise no more than four AHA-funded Fellows (predoctoral and/or postdoctoral) at the same time. This restriction does not apply to co-sponsors. 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 a 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.



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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.

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1. Does the applicant have potential for a research career?
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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 - Mentor/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 mentor's laboratory. Therefore, the proposal will likely be related to the mentor's currently-funded work. The mentor should clarify the role the applicant played in developing the proposal, the relationship of the proposal to ongoing work in the mentor's laboratory, and how the proposal will contribute toward the training and career development of the applicant.

Mentor/Training Plan:

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



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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 mentor.

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 mentor. The assessment of preliminary data, whether generated by the mentor or the applicant, should be put into perspective so that bold new ideas and risk taking by beginning investigators are encouraged rather than stymied.

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 - o Include a specific hypothesis and describe the applicant's role;
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Applications for research funding will be assessed for their potential impact on the CHF and AHA's Mission, and on the applicant's ability to effectively describe the proposal and its potential outcomes to non-scientists. This potential impact assessment will be based primarily on the Summary for Non-scientists (lay summary) and any lay reviewers' impressions. This assessment will be factored into the Impact peer review criterion, which will account for 5-10% of the overall priority score.