



American Heart Association and Children's Heart Foundation Request for Applications (RFA) Congenital Heart Defects Research Awards

Key Dates

| | |
|-------------------------|---|
| Application Deadline: | Tuesday, September 21, 2021, 3 pm Central |
| Peer Review: | November 2021 |
| Notification of Awards: | December 2021 |
| Award Start Date: | January 1, 2022 |

Award Objectives and Characteristics

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.

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, cerebrovascular and brain health research outside the federal government. The AHA's mission is to be a relentless force for a world of longer, healthier lives.

Topics of Interest, Specific Questions and Criteria

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.

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

Predocctoral Fellowship (Appendix A)

Postdoctoral Fellowship (Appendix B)

*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

- Each applicant must be an AHA Professional Member. Join or renew when preparing an application in ProposalCentral, [online](#), or by phone at 301-223-2307 or 800-787-8984. Membership processing may take 3-5 days; do not wait until the application deadline to renew or join.
- Science Focus: The AHA funds basic, clinical, behavioral, translational and population research, bioengineering/biotechnology and public health problems broadly related to fulfilling our mission to be a relentless force for a world of longer, healthier lives.
- Disciplines: AHA awards are open all academic and health professionals. This includes but is not limited to all academic disciplines (biology, chemistry, mathematics, technology, physics, engineering, data science, etc.) and all health-related professions (physicians, nurses, nurse practitioners, pharmacists, physical and occupational therapists, statisticians, nutritionists, etc.).
- AHA maintains dedicated Peer Review Committees by award type and subject. The applicant is required to select the desired review group (AHA Science Classifications). The extent to which the focus of the project is related to cardiovascular and/or cerebrovascular diseases and/or brain health is an important factor that will be considered, though an applicant is not required to be a part of a cardiovascular/cerebrovascular-oriented laboratory, clinic or department.
- The AHA believes diversity and inclusion is an essential component to driving its mission and strongly encourages applications by 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.
- Eligible Mentoring 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, except for applications specifically related to the AHA's Institute for Precision Cardiovascular Medicine.. An investigator may be allowed to request approval to conduct work outside the United States temporarily.
- 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.
- 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 [Proposal Central](#), a web-based system for application preparation, submission, peer review and awards management. The system is available 24/7.



Citizenship - Awardees must have one of the following designations:

- U.S. citizen
- Permanent resident
- Pending permanent resident
(must have filed Form I-485 for permanent resident status and obtained an I-797C Notice of Action that the application has been received by USCIS and case is pending)
- E-3 Visa - specialty occupation worker
- F-1 Visa - student (predoctoral and postdoctoral fellows only)
- G-4 Visa - family member of an international organization employee
- H1-B Visa - temporary worker in a specialty occupation
- J-1 Visa - exchange visitor (for non-training awards, you must have obtained an H-1B or equivalent by the award activation date)
- O-1 Visa - temporary worker with extraordinary abilities in the sciences
- TN Visa - NAFTA Professional
- DACA - Deferred Action for Childhood Arrivals

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

One of the designations listed above must be maintained throughout the duration of the award.

Policies Governing All Research Awards

Open Science Policies:

Open Data - The American Heart Association (AHA) requires that certain applicants include a data sharing plan with the application. Any research data that is needed for independent verification of research results must be made freely and publicly available within 12 months of the end of the funding period (and any no-cost extension).

Public Access - The AHA requires that publications resulting from AHA funding awards be made freely available in PubMed Central within 12 months of publication.

View [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.



Application Submission

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

Deadline: Tuesday, September 21, 2021, 3 pm Central

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 Time.

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

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, cerebrovascular and brain health.

Eligibility

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

- enrolled in a post-baccalaureate PhD, MD, DO, DVM, PharmD, DDS, DrPH, or PhD in nursing or equivalent clinical health science doctoral degree program, who seeks research training with a mentor 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 mentor/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.

AHA does not require but strongly encourages institutions to develop and use Individual Development Plans (IDPs) for AHA 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.

Please note: The mentor may not also serve as a referent.

References

Each applicant must obtain three letters of reference. Those providing the references must upload them into ProposalCentral by the deadline date. The proposal cannot be submitted without the reference reports. A mentor, co-mentor, collaborating investigator or consultant contributing to the proposal may not serve as a referent.



A referent is an individual familiar with the applicant's scientific interests and abilities. Letters should be composed by the referent and should not originate from the applicant. Any appearance of substantially similar language in reference letters will be factored into the score for the Mentor and Environment, which will impact the overall score. Please visit the [Reference Information page](#) for information about the referent upload process and to download a template of the Reference Report form.

Budget

The AHA does not pay indirect costs on fellowships.

Annual Stipend - Matches NIH scale in effect at the time AHA publishes its RFA.

2022: \$25,836 per year, plus \$4,200 per year for health insurance.

Stipend may be used to further supplement health insurance; 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. Applicants for an AHA-CHF Fellowship may also apply for an AHA Fellowship, however if both are awarded, the fellow may accept only one award.
- An AHA Predoctoral Fellowship student may hold only one AHA award at a time.
- This award is not for individuals of faculty/staff rank.
- An AHA Predoctoral Fellowship awardee may not hold another AHA award concurrently. However, the student may apply for an AHA Postdoctoral Fellowship in the last year of the AHA Predoctoral Fellowship.
- An applicant who receives AHA funding, but has an ongoing training grant from another source, may defer the start of the AHA award up to six months to complete the existing fellowship. Prior approval is required.
- AHA allows supplementation from other sources to meet the mentoring institution's stipend and benefit levels, however, the awardee may not hold a comparable award (such as another fellowship) as a source of supplementation.
- The mentor/mentor may supervise no more than four AHA-funded fellows (pre-doctoral and/or postdoctoral) at the same time. This restriction does not apply to co-mentors/co-mentors. Fellows who are part of an AHA Strategically Focused Research Network are excluded.
- Submission of an application to the AHA with identical or significantly similar content as a submission by another investigator is prohibited. Also, the submission of an application to the AHA with identical or significantly similar content from a mentor 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



mentor 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.

AHA reserves the right to an initial triage, whereby a minimum of half of the submissions may be triaged. Of the remaining applications that will be peer reviewed, up to half will be triaged and will receive reviewer comments.

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

Criterion 1 - Summary for Non-Scientists – 5%

1. How well written is the lay summary in explaining to a non-scientist audience the research proposed and its importance?
2. Does the Lay Summary adequately explain the major health problem being addressed by this study?
3. Does it provide specific questions and how the projects will address them?
4. Does it provide information on the overall impact of this work and the potential advances in the field?
5. Does it relay how the proposal supports the missions of the CHF and the AHA?

Criterion 2 – Evaluation of the Applicant – 30%

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 3 - Mentor/Training Plan and Environment- 35%

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?
 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 4 - Evaluation of the Proposal – 30%

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:
 - Include a specific hypothesis and describe the applicant's role on the proposal;
 - Provide a concise account of the subject matter, an overview of each part of the proposal, specific project aims and the methodology;
 - Reflect the significance of the proposal.
 - 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.



Appendix B – Postdoctoral Fellowship

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. 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.

References

Each applicant must obtain three letters of reference. Those providing the references must upload them into ProposalCentral by the deadline date. The proposal cannot be submitted without the reference reports. A mentor, co-mentor, collaborating investigator or consultant contributing to the proposal may not serve as a referent.

A referent is an individual familiar with the applicant's scientific interests and abilities. Letters should be composed by the referent and should not originate from the applicant. Any appearance of substantially similar language in reference letters will be factored into the score for the Mentor and Environment, which will impact the overall score. Please visit the [Reference Information page](#) for information about the referent upload process and to download a template of the Reference Report form.

Budget

Indirect costs are not paid on fellowships.

Annual Stipend - Matches NIH scale in effect at the time AHA publishes its RFA

| Years of Experience | 2022 Stipend |
|---------------------|--------------|
| 0 | \$53,760 |
| 1 | \$54,144 |
| 2 | \$54,540 |
| 3 | \$56,712 |
| 4 | \$58,608 |
| 5 | \$60,780 |
| 6 | \$63,036 |
| 7 or more | \$65,292 |

+ \$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. Applicants for an AHA-CHF Fellowship may also apply for an AHA Fellowship, however if both are awarded, the fellow may accept only one award.
- 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 mentoring institution's stipend and benefit levels is allowed.
- The mentor may supervise no more than four AHA-funded Fellows (predoctoral and/or postdoctoral) at the same time. This restriction does not apply to co-mentors. 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 mentor 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 mentor 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.

AHA reserves the right to an initial triage, whereby a minimum of half of the submissions may be triaged. Of the remaining applications that will be peer reviewed, up to half will be triaged and will receive reviewer comments.

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

Criterion 1 - Summary for Non-Scientists – 5%

1. How well written is the lay summary in explaining to a non-scientist audience the research proposed and its importance?



2. Does the Lay Summary adequately explain the major health problem being addressed by this study?
3. Does it provide specific questions and how the projects will address them?
4. Does it provide information on the overall impact of this work and the potential advances in the field?
5. Does it relay how the proposal supports the missions of the CHF and the AHA?

Criterion 2 – Evaluation of the Applicant – 30%

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 3 – Mentor/Training Plan and Environment- 35%

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?
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 4 – Evaluation of the Proposal – 30%

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:
 - Include a specific hypothesis and describe the applicant's role on the proposal;
 - Provide a concise account of the subject matter, an overview of each part of the proposal, specific project aims and the methodology;
 - Reflect the significance of the proposal.
 - 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.