

2022 American Heart Association and Enduring Hearts Research Awards in Pediatric Heart Transplantation

Published: June 24, 2021



Timeline & Key Dates

Description	Deadline
Request for Applications Published	Thursday, July 1, 2021
Letter of Intent (LOI) Deadline	Thursday, September 30, 2021
Letter of Intent (LOI) Review	Month of October 2021
Notify Invited Applicants for Full Proposals	Friday, November 12, 2021
Invited Full Submission Deadline	Thursday, January 20, 2022
Peer Review	Feb-March 2022
Notifications to Applicants	Friday, April 1, 2022
Public Announcement of Awardees	Friday, April 29, 2022 (in conjunction with Pediatric Transplant Week)
Awards Begin	July 1, 2022

Program Description and Eligibility

The American Heart Association (AHA) and Enduring Hearts (EH) share common priorities and interests in investing in biomedical research. Together, the AHA and EF have established this jointly funded request for applications (RFA) for the **AHA/EH Research Awards in Pediatric Heart Transplantation**.

EH was founded in 2013 with a mission to fund research to increase the longevity of, and improve the quality of life for, pediatric heart transplant recipients.

The AHA was founded in 1924 and its mission is to be a relentless force for a world of longer, healthier lives. The AHA has invested more than \$4.8 billion in research, making it the largest nonprofit funder of cardiovascular and cerebrovascular research outside the federal government.

Purpose

These awards provide support for investigators who are **committed to conducting research directly related to improving the life expectancy and quality of life of pediatric heart transplant recipients.** This funding opportunity will further these areas of focus by offering competitive research grants in basic, clinical, population, and/or translational research via Collaborative Sciences Awards.

Research Priorities

Improving longevity and quality of post-heart transplant life by reducing/eliminating rejection and Cardiac Allograft Vasculopathy (CAV) by:

1. Integrating accurate non-invasive surveillance methods, technologies and biomarkers for care strategies, technologies, and methods towards EARLIER identification of the onset of acute cellular rejection (ACR), antibody-mediated rejection (AMR) and/or cardiac allograft vasculopathy (CAV)
2. Development of therapeutics and/or therapeutic strategies for acute cellular rejection (ACR), antibody-mediated rejection (AMR) and/or cardiac allograft vasculopathy (CAV)
3. Developing novel immunotherapies, identification of novel targets for immunosuppression, improving methods for monitoring and determining the optimal level of immunosuppression to prevent ACR, AMR, and/or CAV while reducing/eliminating secondary conditions that may arise due to immunosuppression (renal; infectious)
4. Development and validation of better experimental models to study the underlying mechanisms, therapies, and/or prevention of CAV
5. Developing more robust evidence for person-centered post-transplant care guidelines, including nutrition and exercise guidelines, and effective delivery of person-centered care.
6. Development of evidence-based strategies to improve the longevity of adolescent recipients

Additional consideration will be given to applications that: develop new technologies; include clinical research; include feasible clinical translations(s) to pediatric heart recipients.

Objectives of the Collaborative Sciences Award

To foster innovative, collaborative approaches to research projects that propose novel pairings of investigators from at least two broadly different disciplines and foster collaboration between established and early- or mid-career investigators.

- The proposal must focus on the collaborative relationships, such that the scientific objectives could not be achieved without the efforts of at least two co-principal investigators and their respective disciplines. The combination and integration of studies may be inclusive of basic, clinical, population, behavioral, and/or translational research. Due to the focus on different science disciplines, **projects must include at least one Co-PI from a field directly related to pediatric heart transplantation and one Co-PI from a field not directly related to clinical pediatric heart transplantation research.**
- This award is also intended to **foster collaborations between established and early- or mid-career investigators.** Applications by existing collaborators are permitted, provided that the proposal is for a new and novel idea or approach that has not been funded before.

Disciplines

Proposals are encouraged from all basic science disciplines as well as epidemiological, behavioral, community and clinical investigations that bear on pediatric heart transplantation. Awards are open to the array of academic and health professionals. This includes but is not limited to all academic disciplines (biology, chemistry, engineering, mathematics, technology, immunology, physiology, etc.) and all health-related professions (physicians, nurses, advanced practice nurses, pharmacists, dentists, physical and occupational therapists, statisticians, nutritionists, behavioral scientists, health attorneys, biomedical engineers, psychologists, etc.). We strongly encourage applications from women, candidates from racial and ethnic groups underrepresented in the sciences, those who have experienced diverse and non-traditional career trajectories, and those whose research has previously been outside of cardiovascular science.

Clinical, translational, population, and basic scientists are encouraged to apply. AHA maintains dedicated Peer Review Committees by award type and

subject. The extent to which the focus of the project is related to cardiovascular and/or cerebrovascular diseases is an important factor that will be considered. The applicant is not required to be a part of a cardiovascular/cerebrovascular-oriented laboratory, clinic or department.

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

Target Audience

An application must be submitted jointly by at least two co-principal investigators, but no more than four:

- **At least one Co-PI must work in research directly related to pediatric heart transplantation.**
- **At least one Co-PI must work in a different discipline** (e.g. engineering, computer science, chemistry, mathematics, psychology, health law, genomics/genetics, etc.) and/or without prior focus in clinical pediatric heart transplantation.
- **At least one Co-PI must be an early-career** (assistant professor or equivalent) **or mid-career** (associate professor or equivalent) investigator.
- Co-PIs must each hold faculty/staff appointments.
- Co-PIs must be independent researchers (i.e. must meet their institutions' eligibility to apply for independent awards). This award is not intended for individuals in research training or fellowship positions.
- Co-PIs may be from the same institution, or from different institutions.
- Co-PIs must be from different disciplines and/or areas of expertise. For example: A collaboration between a clinician and a basic scientist or other collaboration that would not arise otherwise (organically).

Examples of partnerships that have been funded via this mechanism in the past:

- A materials scientist with no previous cardiovascular or stroke-related research collaborating with an interventional pediatric cardiac electrophysiologist;
- A synthetic biologist collaborating with a cardiac biologist;
- A chemist specializing in RNA molecular biology collaborating with a practicing neonatologist with research in cell signaling, hemostasis and thrombosis;
- A kidney disease/ciliopathy researcher collaborating with clinical researcher in genetic determinants of immunosuppressive medication-mediated renal disease and a basic science researcher

also studying genetic kidney diseases.

- If more than three co-PIs are proposed, the applicants should provide clear evidence that they are equal co-PIs. If this will not be the case, then the applicants should classify additional personnel as collaborating investigators or consultants.
- Each Co-PI must hold an MD, PhD, DO, DDS, DVM or equivalent post-baccalaureate terminal (highest-level) degree in his/her discipline.
- **One** of the Co-PIs' institutions **must be designated as the institution of record**, agreeing to sponsor the application and accept award payments, and ensuring that annual progress reports and expenditure reports are submitted to AHA.

Percent Effort

While no minimum percent effort is specified, the Co-PIs must demonstrate that adequate time will be devoted to ensuring the successful completion of the proposed project.

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
- 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

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

Note: it is acceptable for one Co-PI on the proposal to be a Canadian citizen/resident. However, the primary Co-PI must be a faculty/staff member of a U.S.-based non-profit (and non-federal) eligible institution as stated below.

Eligible Sponsoring Institution

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. The primary Co-PI must be from an institution that fulfills this definition.

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.

Budget

Up to \$227,273 per year, including 10% institutional indirect costs.

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

Award Duration: Three years

Total Award Amount: \$681,819

Letter of Intent

A letter of intent is required to ensure responsiveness to the novel, collaborative nature of this program and that the applicants meet the above-specified requirements of the Collaborative Science Award. AHA will contact the applicants who will be invited to submit the full application. Only invited applicants will submit a full application.

The responsiveness to this RFA and the research priorities listed, plus the novel relationship and proposed collaboration of investigators from at least two different disciplines will be given the most weight in evaluating the LOI to determine which teams will be invited to submit full applications.

Required documents for the Letter of Intent:

- A letter (five pages maximum) describing an innovative, collaborative approach to research that incorporates a novel grouping of investigators from at least two widely disparate disciplines and/or areas of expertise. The written summary must focus on the collaborative relationship of the investigators, such that the scientific objectives cannot be achieved without the efforts of at least two co-principal investigators and their respective disciplines and expertise. The combination and integration of studies may be inclusive of basic, clinical, population, behavioral, and/or translational research.
- A biosketch from each of the proposed Co-Principal Investigators (five-page maximum, each).

The Letter of Intent and biosketches must be submitted before the posted deadline. An applicant may be a Co-Principal Investigator on ONLY ONE Collaborative Sciences Award application.

Letters of Intent (LOIs) are required and must be submitted through

For specific Application Instructions, visit the [AHA Application I](#)

LOI Deadline: Thursday, September 30, 2021, 3 p.m. Ce

The system will shut down at 3 pm Central Time. Early submissi

The applicant has the final responsibility of submitting the completed appl

Peer Review Criteria (for invited applicants)

This initiative will have a dedicated Peer Review Committee comprised of experts in the field. To judge the merit of the application, reviewers will comment on the following criteria. **Please be sure to fully address these in your proposal:**

The proposal must expand on the LOI detailing how the research directly relates to improving the life expectancy and quality of life of pediatric heart transplant recipients and detailing the collaborative relationship, such that the scientific objectives cannot be achieved without the efforts of at least two co-principal investigators and their respective disciplines. The combination and integration of studies may be inclusive of basic, clinical, population, behavioral, and/or translational research.

1. **Collaboration:** It is incumbent upon the applicants to convey the highly novel nature of their relationship. Are the investigators from at least two different disciplines and/or areas of expertise? How does the proposed collaborative relationship strengthen or weaken the proposal? Does the proposal focus on the collaborative relationship, such that the proposed

objectives could not be reached without the efforts of both principal investigators and both (or all) disciplines? Does the effort of each Co-PI reflect proper equity in the project? Are both established and early to mid-career investigators substantively involved for the duration of the proposed study?

2. **Investigators:** Does the investigative team bring diverse, complementary and integrated expertise to the project? Are the investigators appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience levels of the principal investigators and other researchers? How does the investigators' previous work (which is not required to be directly related to cardiovascular disease) strengthen and ensure the project's success?
3. **Significance:** Does this study address an important problem related to the research priorities of 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 this field?
4. **Approach:** Are the conceptual framework, design, methods and analyses adequately developed, well-integrated, well-reasoned, feasible (as determined by preliminary data), and appropriate to the aims of the proposal? Is the project scope likely to be completed within the award period? Does the applicant acknowledge potential problem areas and consider alternative tactics?
5. **Innovation:** Is the proposal original and innovative? For example: Does the proposal challenge existing paradigms and address an innovative hypothesis or critical barrier to progress in the field? Will the project foster or employ novel concepts, approaches, methodologies, tools or technologies for this area? How does the diversity of disciplines and/or expertise of the collaborators make the innovation possible?
6. **Environment:** Does the 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(s), or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?
7. **Impact:** How effectively does the applicant describe for an audience without a science background how this proposal will impact the missions of EH and AHA? Does the science accelerate the discovery, interpretation and application of scientific knowledge to improve the life expectancy and quality of life of pediatric heart transplant recipients? Evaluation of impact should be emphasized by the lay summary (aka "summary for non-scientists").

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.

Other Restrictions and Guidelines

- An applicant may be a Co-PI on only one Collaborative Sciences Award application per deadline.
- A Collaborative Sciences awardee may also apply for or hold another AHA or EH research award (e.g., Established Investigator Award, Innovative Project Award, Transformational Project Award, AHA Institutional Research Enhancement Award, or Career Development Award) and may be the program director or sponsor on an AHA Institutional Undergraduate Fellowship Program award.
- Strategically Focused Research Network personnel may hold individual AHA awards, including a Collaborative Sciences Award.
- A Fellow-to-Faculty Transition Award recipient may apply for and receive a Collaborative Science Award during the faculty phase. The awardee may request only project support from the Collaborative Science Award since the Fellow-to-Faculty Transition Award provides significant salary support.
- Awards are not intended to supplement or duplicate currently funded work. Rather, it is expected that submitted applications will **describe projects that are clearly distinct from ongoing research activities**. Minor variations from existing research projects are not sufficient to constitute independent and distinct projects.