

AHA's Second Century Early Faculty Independence Award

Important Notes:

Deadline for required pre-proposals: Tuesday, April 4, 2023

Deadline for full proposals (invited applicants only): Monday, May 22, 2023

- Proposals must be received no later than **3 p.m. Central Time** on the deadline date. Early submission is encouraged.
- Before beginning an application, review the eligibility and requirements that apply to all AHA research awards.
- 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.
- All proposals must be submitted electronically via ProposalCentral. The system will open eight weeks prior to the application deadline to complete your proposal and upload documents. You can begin to create your documents now; please refer to the AHA Application Instructions. All submissions require a signature from a designated institutional representative.

Note to applicants who receive a Career Development Award to begin April 1, 2023 (award notices anticipated mid-March): Any submitted pre-proposals will not advance.

- Applicants invited to submit full proposals must be AHA Professional Members at the time of proposal submission. This must be done online. Join or begin the membership process well before the deadline. This requirement is not applicable for the pre-proposal.
- Awards will begin July 1, 2023.

Background and Purpose – Addressing Critical and/or Emerging Priorities

As the American Heart Association approaches its 100-year anniversary, the importance of bringing novel approaches to address critical gaps in the health and well-being of all cannot be overstated. In recognition of this pending anniversary and the need to foster solutions in these areas, AHA's Board of Directors allocated additional one-time research funding to support innovative research initiatives to address these gaps. AHA's Second Century Early Faculty Independence Awards will support highly promising investigators in the early years of their first professional appointment as they address one of several possible areas of critical, emerging priority. Suggested thematic areas of research focus include:

- Technology-driven health care and diagnostics, including artificial intelligence/machine learning approaches, telemedicine, biosensors and wearables
- Novel and emerging therapeutics, including genome editing therapies, regenerative therapies, and bioengineered foods
- Environmental impacts on health, including direct and indirect effects
- Research and solutions for issues affecting aging populations and the shrinking healthcare workforce

Note: applicants may propose a research topic other than those noted above, provided a strong rationale is made for research on that topic as a critical/emerging topic for the next century. Research in any scientific domain including basic, translational, clinical and implementation research will be considered.

In addition to providing support for awardees' research, this program will provide unique leadership and service opportunities for awardees. Examples of activities that may be available to awardees include

- Engagement opportunities with leadership of one or more of AHA's sixteen Scientific Councils
- Engagement with AHA leadership at AHA scientific meetings and events
- Participation in activities of AHA's Research Committee or one of its subcommittees
- Participation in AHA's research grant peer review process

Eligibility

- At the time of proposal submission, the applicant must hold an MD, PhD, DO, DVM, DDS, or equivalent post-baccalaureate doctoral degree.
- Applicants can be up to and including Assistant Professor (or equivalent).
- Postdoctoral fellows are eligible to apply but must have attained a faculty appointment by the time of award activation (July 1, 2023).

- Associate and Full Professors are not eligible to apply.
- Investigators who have been awarded NIH K99/R00 or R01 grants are not eligible to apply.
- The awardee must devote at least 10% effort to this award.

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 six 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.). If the candidate held the title of instructor during postdoctoral fellowship or residency years due to clinical or teaching responsibilities, that period of time does not count against the eligibility period for applying for this funding mechanism. The AHA will consider interruptions of work experience due to extenuating circumstances and clinical training.

Pre-proposal (letter of intent) - Required

Application for this award requires a pre-proposal (letter of intent). The pre-proposal is comprised of separate uploads, detailed below. The AHA will contact applicants with the highest-rated pre-proposals through ProposalCentral and invite them to submit a full proposal. The pre-proposal should briefly address the following points.

One (1) page upload to address the Proposed Project:

- Describe the proposed project in no more than one (1) page.
- Specify how the proposed project will address one or more of the areas identified above as a critical or emerging priority.
- Applicants may propose a research topic other than those noted above, however, a strong rationale must be made for research on that topic as a critical/emerging next century topic.

One (1) page upload to address the Applicant and Mentoring Team:

- Is the applicant appropriately trained, productive, and well suited to carry out this work?
- Does the applicant warrant early career support, based on a record of diligence, commitment, and productivity?
- The award requires, at a minimum, a primary mentor and a secondary mentor who will provide counsel and direction and scholarship oversight.

Applicants should clearly define each person's role as part of the mentoring team.

Additional uploads required:

- Applicant's biosketch (5 pages)
- Biosketches from primary and secondary mentors (5 pages each)
- Primary and secondary mentors' past/current trainees (3 pages each)

The AHA will use the pre-proposal to evaluate the applicant, mentoring team, and proposed project with respect to:

- Eligibility and Qualifications of the Applicant
- Training and Mentoring Team
- Proposed research focus as a critical/emerging next century topic

Reviewers will also be asked to consider the overall potential impact, feasibility of the project, and likelihood of contributing to the applicant's career growth.

Full Proposal Requirements (if selected to submit)

Mentor's Training Plan (4 pages maximum): 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 of 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 proposal and training plan, make necessary arrangements with the institution to conduct the proposed research work, enforce the appropriate timelines for accomplishing the work, and guide the awardee toward a productive career in their chosen research field.

- One individual must be identified as the primary mentor who will assist in the coordination of the candidate's research. The primary mentor should be an active investigator in 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 department, division, or institution.
- 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 – The AHA does not require this to be a traditional academic research or health profession track. For example, an applicant might wish to pursue a career in industry, technology, teaching, or public health, etc.
- Long-term professional goals (for example, positions desired or other specific professional goals, such as 'write a book').
- Explicit short-term goals that contribute to long-term interests and the most important anticipated challenges that must be mitigated/overcome to reach these goals.
- Timeline and 2-3 metrics that will define success in reaching each goal.
- Describe training or experiences you will develop to contribute to and ensure that long term goals are achieved.
- Which aspects of your current work/job will be delegated to others 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 or 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.

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

How and Why to Write a Career Development Plan | Robert Half
 Guide to Writing a Career Development Plan | SuccessFactors, Inc.

Budget

\$100,000 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, data management, and publication costs, etc.

Award Duration: Three years. No-cost extensions are not allowed, and the awards are non-renewable.

Total Award Amount: \$300,000

Restrictions and Other Award Characteristics:

- An applicant may submit only one AHA Second Century Award proposal (either to the AHA's Second Century Implementation Science Award OR the AHA's Second Century Early Faculty Independence Award [THIS MECHANISM])
- If the applicant currently holds an AHA Career Development Award (CDA), the CDA must be relinquished upon acceptance of this award.
- Strategically Focused Research Network and/or Health Equity Research Network personnel may hold individual AHA awards, including this Second Century Award.
- An awardee of this initiative may also hold an AHA Collaborative Sciences Award, Innovative Project Award, Transformational Project Award, and may be the program director or sponsor on an AHA Institutional Award for Undergraduate Training.

Required Documents

Pre-proposal:

1. Research Project Description (1 page maximum)
2. Applicant and Mentoring Team (1 page maximum)
3. Applicant Biosketch (5 pages maximum)
4. Primary Mentor Biosketch (5 pages maximum)*
5. Secondary Mentor Biosketch (5 pages maximum)*
6. Primary Mentor's Past/Current Trainees (3 pages maximum)*
7. Secondary Mentor's Past/Current Trainees (3 pages maximum)*

* Documents will need to be uploaded again in ProposalCentral if invited for full proposal submission

Full proposal:

1. Mentor's Training Plan (4 pages maximum)
2. Career Development Plan (3 pages maximum)

3. Research Plan (8 pages maximum)
4. Budget Justification (DOC) (2 pages maximum)
5. Research Project Environment (DOC) (2 pages maximum)
6. Vertebrate Animal Subjects (if applicable, no page limit)
7. Literature Cited (4 pages)

Full proposals will also require the following items will be entered into form fields in ProposalCentral. They are listed here for applicant awareness:

- Abstract
- Non-Scientist Summary
- Budget

Optional Third Parties:

- Collaborating Investigator's Biosketch (5 pages)
- Collaborating Investigator's Letter (5 pages)
- Consultant's Letter (5 pages)

[Questions/Help: apply@heart.org](mailto:apply@heart.org)

Peer Review Criteria

An applicant is prohibited from contacting AHA peer reviewers. This is a form of scientific misconduct and will result in the removal of the proposal from funding consideration, and the applicant's institution will be notified of misconduct.

The AHA reserves the right to an initial triage, whereby a minimum of half of the submissions may be triaged.

To judge the merit of invited full proposals, reviewers will comment on the following criteria. Please address these in your proposal. The AHA uses a 1-9 score scale and AHA Peer Review Guidance (PDF).

Non-Scientist Summary

AHA Mission: To be a relentless force for a world of longer, healthier lives.

- How well written is the Non-Scientist Summary in explaining to a non-scientist audience the research proposed and its importance?
- Does the Non-Scientist Summary adequately explain the major health problem being addressed by this study?
- Does it provide specific questions and how the projects will address them?

- Does it provide information on the overall impact of this work and the potential advances in the field?
- Does it relay how the proposal supports the mission of the AHA?

Mentorship and Career Development Plan

Mentor's Training Plan (4-pages maximum)

- Do the mentors have the experience to direct the proposed research training, as evidenced by a track record regarding productivity, funding and prior trainees?
- 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?
- Is an appropriate level of time, effort, funding, and involvement proposed for the mentoring component?
- Is there a contingency plan for mentors, if they cannot fulfill their contract for mentorship to the early career investigator?

Career Development Plan (3-page limit)

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

Research Plan

Investigator and Environment:

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 (applicant) 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 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? Does the mentoring team have experience and success mentoring early career investigators to independence?

Significance:

Does this study address an important problem and/or one or more of the critical or emerging priorities referenced above to fill gaps in the health and well-being of all? Does the science accelerate the discovery, interpretation, and application of scientific knowledge to enhance and treat cardiovascular and brain health? If the aims of the proposal are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect of these studies on the concepts, methods and technologies that drive this field? How will the acquisition and analysis of data during this early career award facilitate the successful transition to independence of the early career investigator toward successful future 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 proposals that include vertebrate animals or human subjects, applicants must explain how relevant biological variables, such as sex and age, are factored into the research design, analysis, and reporting. Furthermore, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for proposals proposing to study only one sex or a specific age group.

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? Does the proposal 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?