ARPA-H Seed Funding Office of Sr. Vice President for Research

Background

On March 15, 2022, Public Law 117-103 was enacted, authorizing the establishment of Advanced Research Projects Agency for Health (ARPA-H) within the U.S. Department of Health and Human Services.

ARPA-H will support transformative high-risk, high-reward research to drive biomedical and health breakthroughs—ranging from molecular to societal—that would provide transformative solutions for all patients.

ARPA-H will:

- Speed application and implementation of health breakthroughs to serve all patients
- Foster breakthroughs across various levels from the molecular to the societal
- Build capabilities and platforms to revolutionize prevention, treatment, and cures in a range of diseases
- Support "use-driven" ideas focused on solving practical problems that advance equity and rapidly transform breakthroughs into tangible solutions for all patients
- Focus on multiple, time-limited projects with different approaches to achieve a quantifiable goal
- Use a stage-gate process, with defined metrics, and inject accountability through meeting these metrics
- Overcome market failures through critical solutions or incentives
- Use the Defense Advanced Research Projects Agency (DARPA) as a model to establish a culture of championing innovative ideas in health and medicine

Although still in a very early stage, ARPA-H would be very different than NIH review and award-making processes. Term-limited program managers (PMs) will be foundational to ARPA-H's culture and process. PMs will guide ARPA-H's investments, which are exempt from the peer review process. Projects funded by ARPA-H are expected to rapidly deliver results on-time and on-budget.

For additional background, see: https://research.emory.edu/research-development/arpa-h.html

Purpose

To help position Emory faculty for the launch of ARPA-H, the Office of the Sr. Vice President for Research, in consultation with the Office of the Provost, has created the ARPA-H seed funds program. These seeds are intended to lead to competitive ARPA-H proposals. In alignment with ARPA-H's expected culture and processes, the purpose of this seed funding is to rapidly de-risk bold, revolutionary concepts in the biomedical and health sciences.

Given the unique culture of ARPA-H and its reliance on program managers to make funding decisions based on the <u>Heilmeier Questions</u> (and not peer review), awardees will receive tailored training and feedback on their responses to the Heilmeier Questions. During and after the conclusion of the seed project, seed recipients will work with the Office of Research Development to refine their ARPA-H pitch.

Eligibility for Emory ARPA-H Seed Funds

Proposals are invited from all faculty at Emory University. Pls must:

- Be Emory faculty or faculty equivalents, including tenured, tenure-track, tenure-eligible, and non-tenure-track research scientists.
- Be eligible to apply for external funding.
- Collaborating teams of faculty from multiple units are highly encouraged.

Budget and Project Duration

Period of Performance: The project period is 12 months. In alignment with ARPA-H's culture, no extensions will be granted.

Number of Awards: The number of awards is dependent on the number of high-quality proposals. The Office of SVPR intends to invest *up to* \$375,000.

Award Amounts: The maximum total budget per proposal is *up to* \$75,000.

Use of Funds: Funds may be used for activities directly related to the research: salaries and benefits for research trainees (students, postdoctoral trainees), research supplies, equipment/facility recharge, some travel, etc. Funds may not be used for faculty salary, course buyouts, administrative staff, seminar speakers, or conferences. Consultant costs may be considered. Generally, subcontracts are not permitted but could be allowed under unique circumstances. No F&A funds are provided. All funds must be expended by the end of the project period.

Timeline

08/03/22 - RFP released

10/05/22 - Proposals due by 5:00pm

12/15/22 – Applicant award notification

01/03/23 – Award start date

12/30/23 – Award end date

Application Instructions

Instructions for Submittal: To submit an application for funding under this RFP, please fill out the application on InfoReady, Emory University's internal competition software.

Click here to apply to the competition.

If you have any questions about the application process or the seed program, please contact ResearchDevelopment@emory.edu.

Format: Single-spaced, 11-point font Arial with half-inch margins. Smaller text in figures, graphs, diagrams, and charts is acceptable as long as it is legible.

Proposals should include the following sections:

- 1. Online Application Form (basic contact information entered in InfoReady)
- 2. Research Plan (Heilmeier Questions) (up to 4 pages):

George H. Heilmeier, a former DARPA director, crafted a set of questions known as the "Heilmeier Catechism" or "Heilmeier Questions" to help agency official think through and evaluate proposed research projects. These questions are also central to ARPA-H's approach and foundational to engaging with PMs. Therefore, applicants are asked to prepare proposals in a nontraditional format that specifically responds to the Heilmeier Questions:

- 1. What are you trying to do? Articulate your objectives using absolutely no jargon. What is the problem and why is it hard to overcome?
- 2. How is it done today, and what are the limits of current practice?
- 3. What is new in your approach and why do you think it will be successful?
- 4. Who cares? If you are successful, what difference will it make? What other applications might be enabled?
- 5. What are the risks?
- 6. How much will it cost?
- 7. How long will it take?
- 8. What are the mid-term and final "exams" to check for success? How will progress be measured?
- 9. (Anticipated ARPA-H specific question): How will this project promote health equity and how you will ensure equity in the outcomes of this project?

3. Attachments:

- 1. References
- 2. Emory budget with breakdown of cost categories (see Budget Template)
- 3. Current and Pending Support for Co-Pls and other investigators (please use the NSF template)
- 4. Biosketch Attach an NIH- or NSF-style biosketch for all PIs, and other investigators.

5. Highly Recommended/Optional: Academic unit letter of support. Given the high-risk/high-reward nature of ARPA-H project, applicants are encouraged to attach a letter of support from their academic unit leader(s) that further contextualizes the potential scientific breakthrough being pursued. This letter of support is optional and not required.

Review Criteria

Proposals will be reviewed jointly by Emory faculty members. The review panel will provide a recommendation of funding to the final selection committee, which includes the SVPR, who will determine the awardees.

Evaluations will be based on these criteria:

- 1. **Alignment with ARPA-H:** Does the project align with ARPA-H's mission and vision for advancing usedriven scientific breakthroughs in the biomedical sciences and health as well as promote health equity (double-weighted criteria) (Heilmeier questions 1-9)
- 2. **Merit and Significance**: Will the proposed project advance research in the field? Does it challenge the current state of art? Will it overcome a barrier to advancing research in this field and broaden the horizon for future research? Is this a major question or problem? (Heilmeier questions 1, 2, & 4)
- 3. **Innovation and Differentiators**: Does the project leverage new theories, tools, or applications to advance the field? Will the project shift the current paradigm in the field? Are technical or intellectual innovations included in the proposal? Does the PI leverage individual or institutional differentiators? (Heilmeier question 3)
- 4. **Feasibility and Approach**: Are the proposed research plans, methods, and analyses appropriate? Will the methods and analyses achieve the objectives of the project? Are adequate resources (expertise, tools, equipment) included in the proposal? How will success be measured? Can the project be completed on time? (Heilmeier guestions 5, 6, 7, 8)

Working with Office of Research Development

Awardees will work with the Office of Research Development during and after the project period to refine their ARPA-H pitch based on the Heilmeier Questions. During the 12-month project period, awardees will meet with ORD staff and other awardees *up to* 6 times (approximately once every other month, at most) to refine their written and verbal pitches.

Progress Tracking and Reporting

Awardees are expected to submit at least one external proposal based on the research. Awardees must submit a final report within 60 days of the award period end. The final report should include results of the research, new funding targets identified during the process, efforts underway to obtain external funding, and efforts to generate publications.

Awardees are required to submit brief annual progress reports for three years following completion of the funded award to state progress on the following metrics: publications, external grant funding, and/or further projects stemming from the award.

Financial Management

The Emory SVPR's Office will establish these awards. The PI and their academic unit are responsible for reconciling project accounts as non-sponsored funds.