ARPA-H Dash

The Advanced Research Projects Agency for Health

Renee Wegrzyn, Ph.D.
Director, ARPA-H

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The Promise of ARPA-H

Accelerate better health outcomes for everyone.
President Biden’s vision

“ARPA-H will pursue ideas that break the mold on how we normally support fundamental research and commercial products in this country.”
- President Biden Remarks, March 18, 2022
Imagine if…

AFFORDABLE CUSTOM CANCER VACCINES FOR EVERYONE

3D BIOPRINTED REPLACEMENTS FOR DAMAGED ORGANS

NANOROBOTIC SURGERY DELIVERED BY A PILL

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ARPA-H Organization within HHS

ARPA-H Key Features & Authorities

• ARPA-H is a Federal R&D Funding Agency
• Congress has provided $2.5B to start; funding independent of NIH
• Independent component of HHS within NIH, but not an Institute
• ARPA-H Director reports directly to HHS Secretary
• No internal research labs; disease agnostic
• Lean and nimble management structure
• Bottom-up Program Manager driven ideas and decision-making
• Prize Authority
• Not grant-based; focus on Cooperative agreements, OTAs, contracts
• High Risk/High Impact Research

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ARPA-H Health Ecosystem

CUSTOMERS
- Healthcare Providers
- Patient Groups
- Academia
- Industry

PERFORMERS

STAKEHOLDERS
- NIH ICs
- Federal Partners: FDA, CMS, HRSA, et al
- Private Investors
- NGOs

(AND MANY OTHERS...)

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ARPA-H is Open for Business!

**First BAA Announcement**

ARPA-H opened its first Agency-wide Open BAA, seeking funding proposals for research aiming to improve health outcomes across patient populations, communities, diseases, and health conditions. The BAA calls for proposals to outline breakthrough research and technological advancements.

Open Broad Agency Announcement | ARPA-H SAM.gov

**Site Selection**

ARPA-H seeks to establish sites in three geographic locations across the United States through the pursuit of a hub-and-spoke strategy. ARPA-H will solicit respondents to identify the geographic locations sites for Hub No. 2 and 3, issuing a draft Request for Consortium Agreement (RCA), describing the approach to identify the unique locations and capabilities that best serve the ARPA-H mission.

Request for Proposals | ARPA-H & SAM.gov

**ARPA-H Dash**

The ARPA-H Dash to Accelerate Health Outcomes, or “ARPA-H Dash,” is launching to identify revolutionary evidence-based ideas to transform health. The ARPA-H Dash is a collaborative online competition open to bold thinkers across health and scientific communities and provides a simple, engaging, and impactful way to solicit the best ideas in the country to enhance the ARPA-H mission.

ARPA-H Dash | ARPA-H Online Portal

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The Program and Program Manager Flywheel

PM joins with their vision to advance health outcomes

The ARPA-H portfolio is (1) a reflection of the program managers, (2) dynamic, and (3) will - and should! - change frequently.
Organizational Attributes

Nucleus of Org.
Facilitating the Future

PMs are the nucleus of the organization, and their energy and passion drive the mission.
ODs and DIRO “work for” the PMs to facilitate success.
PMs are responsible for the full program lifecycle, from new start proposal to transition.

Radical change
Evolutionary proposers need not apply

ARPA-H investments should seek to address seemingly impossible barriers in demonstrating “proof of concept” for solutions to major challenges - not incremental advances.
Projects should be high-payoff, high-risk, with the most forward-looking science and technology.

Autonomy
Programs are PM directed

Workshops, consultations, seedlings are encouraged, but no advisory/guidance committees
PMs should practice “full contact” management, with metrics/milestones for program, empowered to stop underperforming projects
PMs manage multiple programs, including programs they inherit from departing PMs

Term limits
A “projects” agency, not a career

Terms limited to 3 years (renewable once for 6 total years) for PMs, ODs, and DDs, allowing inflow of new ideas
Limits create urgency and focus on successful NSPs - aligned with office/agency
Limits remove incentives for empires, organization-building, span of control, bureaucracy, etc.

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ARPA Model: Program Formation

**CHALLENGE**
The challenge should NOT be easily solvable through traditional activities.

**PROGRAM MANAGER**
Program Manager identifies a difficult health-related challenge that is ripe for solving.

**PROGRAM LAUNCH**
A Program Manager seeks and oversees several groups of performers aiming to solve the same problem in unique ways.

**PERFORMERS**
Performers compete to carry out their potential innovative solutions to the challenge.

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GRADUATION
Graduation occurs when the challenge is solved. The project then transfers to partners, who have been involved from the start and can scale the solution for large, diverse communities everywhere.
# ARPA-(H)eilmeier Questions

## Towards a Well-Defined Problem

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are you trying to do? What health problem are you trying to solve?</td>
<td>1</td>
</tr>
<tr>
<td>How does this get done at present? Who does it? What are the limitations of present approaches?</td>
<td>2</td>
</tr>
<tr>
<td>What is new about our approach? Why do we think we can be successful at this time?</td>
<td>3</td>
</tr>
<tr>
<td>Who cares? If we succeed, what difference will it make?</td>
<td>4</td>
</tr>
<tr>
<td>What are the risks? That may prevent you from reaching your objectives? Any risks the program itself may present?</td>
<td>5</td>
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<tr>
<td>How long will it take?</td>
<td>6</td>
</tr>
<tr>
<td>How much will it cost?</td>
<td>7</td>
</tr>
<tr>
<td>What are our mid-term and final exams to check for success?</td>
<td>8</td>
</tr>
<tr>
<td>To ensure equitable access for all people, how will cost, accessibility, and user experience be addressed?</td>
<td>9</td>
</tr>
<tr>
<td>How might this program be misperceived or misused (and how can we prevent that from happening)?</td>
<td>10</td>
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Initial Mission Focus Areas

Health Science Futures
Expanding what’s technically possible
Accelerate advances across research areas and remove limitations that stymie progress towards solutions. These tools and platforms apply to a broad range of diseases.

Scalable Solutions
Reaching everyone quickly
Address health challenges that include geography, distribution, manufacturing, data and information, and economies of scale to create programs that result in impactful, timely, and equitable solutions.

Proactive Health
Keeping people from being patients
Preventative programs will create new capabilities to detect and characterize disease risk and promote treatments and behaviors to anticipate threats to Americans’ health, whether those are viral, bacterial, chemical, physical, or psychological.

Resilient Systems
Building integrated healthcare systems
Create capabilities, business models, and integrations to weather crises such as pandemics, social disruption, climate change, and economic instability. Systems are sustained between crises—from the molecular to the societal—to achieve better health outcomes.
ARPA-H
Dash

Dr. John Main

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Goal of the ARPA-H Dash

Bring everyone affected by health ...

- Scientists
- Engineers
- Entrepreneurs
- Practitioners
- Policymakers
- Lawmakers
- Businesses

and patients
(and non-patients)

...together in a productive, rigorous conversation, where all types of health improvements can be proposed, debated, and evaluated.

Unique ARPA-H challenges require a unique approach.

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Bring your knowledge to the online ARPA-H Dash to Accelerate Health Outcomes

- **64** Transformation Ideas Selected from Public Submissions

- **6** Rounds of Paired Matchups Lead to a Champion

- Paired winners judged on entry quality, voting, and debate

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Anyone can submit! Here’s what an entry looks like

1. Explain what transformation you are proposing.
   (200 character limit)

2. Explain how it is done today, and what the current limits are.
   (200 character limit)

3. What is new in your approach and why do you think it will be successful and transformational?
   (200 character limit)

4. Attach a reference to a critical reference or paper that strengthens your argument.

This is a bit of work, but helps people understand your thinking. If they support you, then you could be a winner!
A great entry could win you a prize

Transformation Evidence Champion: $15,000
Runner-up, Transformation: $12,000
Two Semi-Finalists: $10,000 Each
Four Quarterfinalists: $6,000 Each

You can also participate by joining the debate and voting on the head to head matchups. Top voting records win $100 to $1500.
Timeline

- **15 Mar.** Challenge is announced
- **8–14 Apr.** Submissions
- **29 Mar.–7 Apr.** Entries Selected & Seeded
- **17 Apr.** Bracket Structure Published
- **17 Apr.** Round 1 Voting and Debate Begins
- **12 May** Round 6 Round Voting and Debate Ends (the championship)
- **16 May** Competition Ends/Formal Announcement
- **May-September** Workshops Based on Final Ideas

**Round-by-round dates for debate, voting, and evaluation**

- Round of 64 = 17 - 23 Apr
- Round of 32 = 24 Apr - 30 Apr
- Round of 16 = 1 - 4 May
- Round of 8 = 5 - 8 May
- Round of 4 = 9 - 10 May
- Finals = 11 - 12 May

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Two ways for the public to participate! Do one (good) or do both (better!)

1. Enter a Health Transformation Idea

2. Join the debate and vote in the Head-to-Head Matchups

www.arpa-h.gov  polyplexus.com
To participate in the Virtual Q&A, log in to Polyplexus (if you don't have an account [register here]) and visit the competition portal page.

Then, go to the Questions tab and post your questions under the category threads. A competition representative will answer within the hour.

The Questions tab is live now if you'd like to start posting immediately, and it will be live for the duration of the event. This live session is the best way to ensure your questions are answered before the submission period opens and get real-time responses to follow-up questions.