

ARPA-H: The Mission

Advanced Research Projects Agency for Health (ARPA-H)

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Mission

Accelerate better health outcomes for everyone.



ARPA-H Key Features and Authorities

ARPA-H has unique structures and legal authorities that allow it to **function like a business – quickly, nimbly, and decisively.**

- ARPA-H is a **funding agency**
- **Independent** component of HHS
- No internal research labs; **disease agnostic**
- Generally **fund outcome-based contracts**, not grants; accelerated award timelines
- Unique **FDA reimbursement authority**

FY 2022	FY 2023	FY 2024	FY 2025
\$1B	\$1.5B	\$1.5B	Request: \$1.5B



Lean and nimble management structure with autonomy in decision-making.

ARPA-H Director **reports directly to HHS Secretary**



Term limits of 3-6 years bring urgency and idea flow.

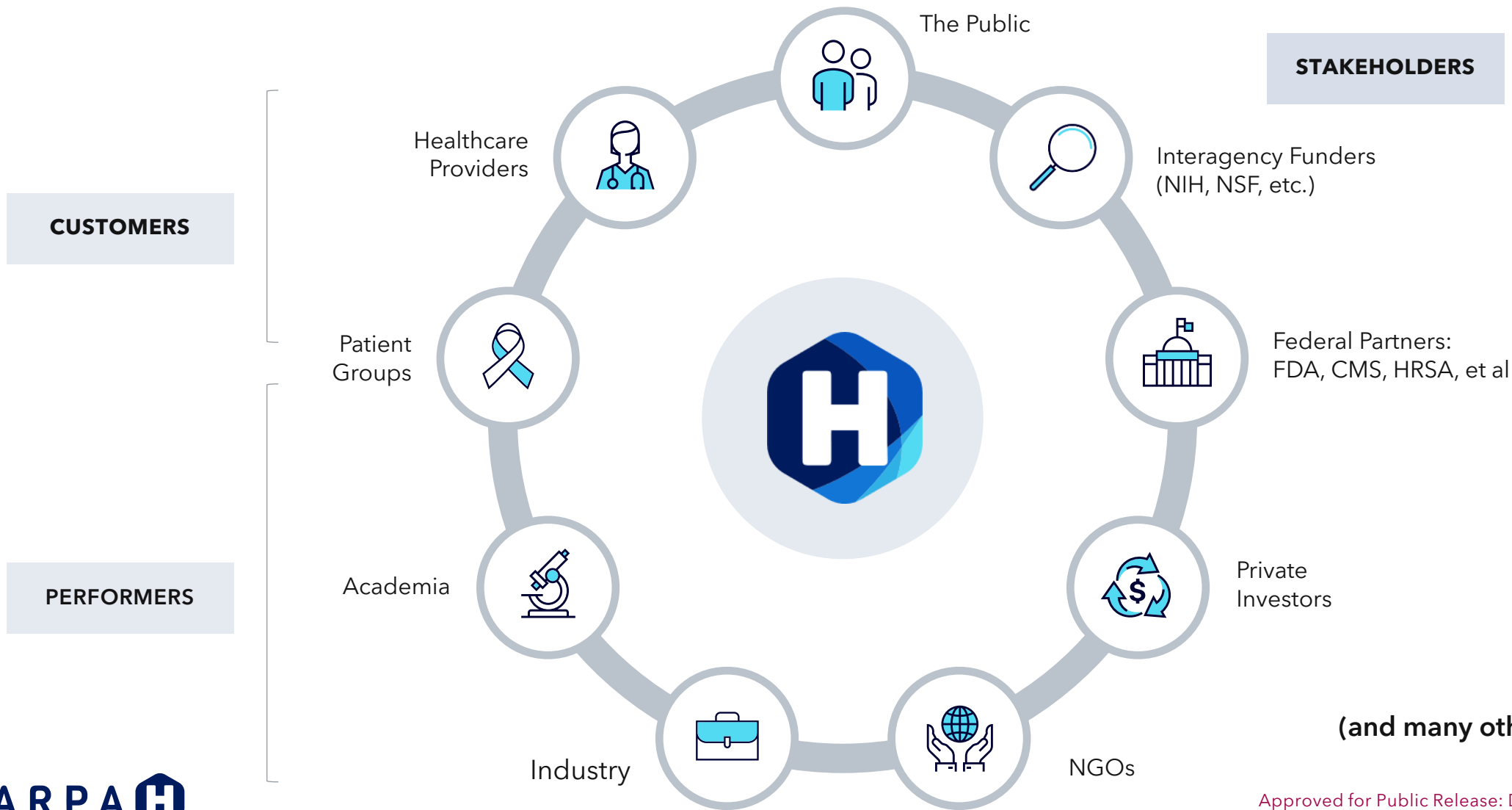
Flexibility in hiring allows ARPA-H to recruit at levels competitive with industry.



Bottom-up decision-making. Program Managers have autonomy to make decisions quickly.

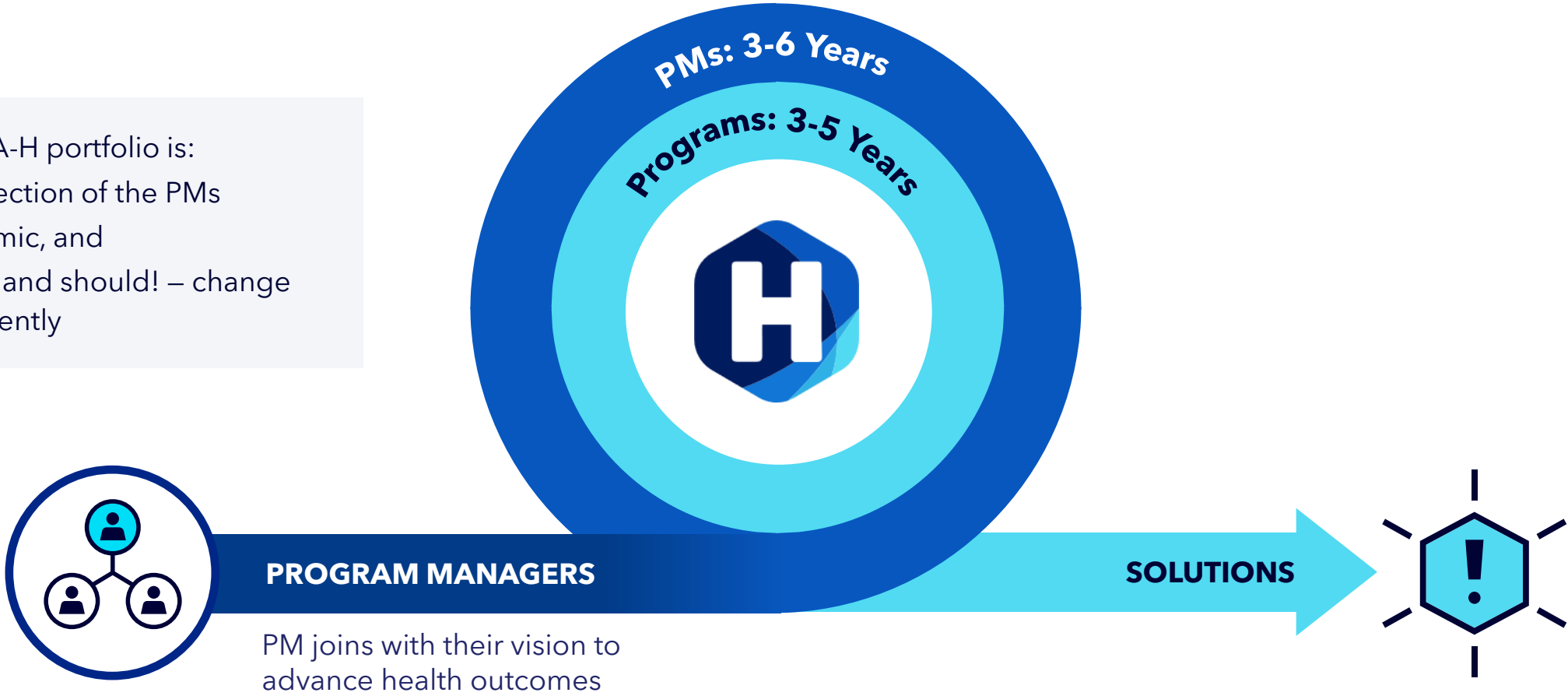
ARPA-H is a problems focused organization.

ARPA-H Accelerates the Entire Health Ecosystem



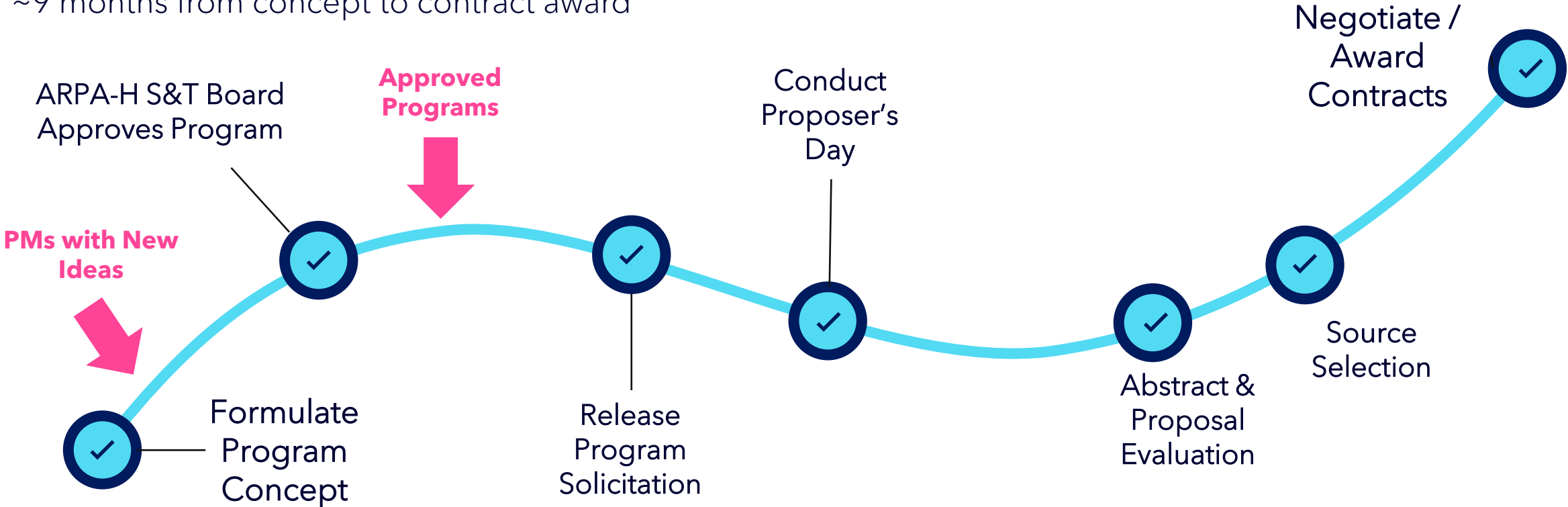
The Program and Program Manager Flywheel

The ARPA-H portfolio is:
(1) a reflection of the PMs
(2) dynamic, and
(3) will – and should! – change frequently



Program Development Lifecycle

~9 months from concept to contract award



Key Elements to launching ARPA-H Program toward success: Technical Discipline, Due Diligence, and Financial Risk Management The time to formulate ARPA-H programs is 2-4 months (engage stakeholders, potential performers, develop metrics), followed by ~6 months from program approval to launch, evaluate proposals and negotiate contracts



ARPA-H Model: Program Lifecycle

Launch

Program Manager

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



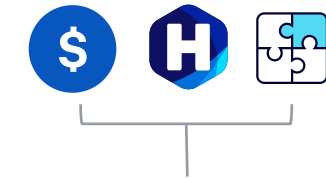
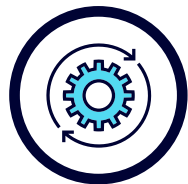
Challenge

The challenge should NOT be easily solvable through traditional activities.



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.

Support

ARPA-H will provide contracts - not grants - for projects with well-defined endpoints. Additional support will be provided by Program Managers, partners, and ARPA-H offices to ensure the best chance of success throughout the process.

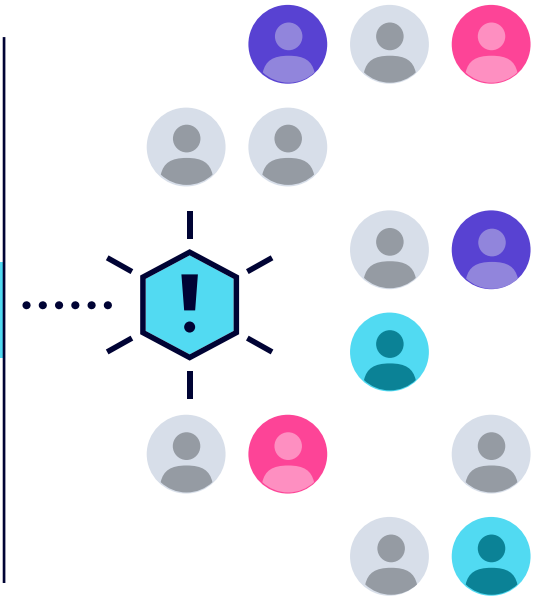
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Perform

Performance

Contract performance will be regularly evaluated to allow ARPA-H to concentrate resources on the most effective approaches to reaching the desired goals.

Transition



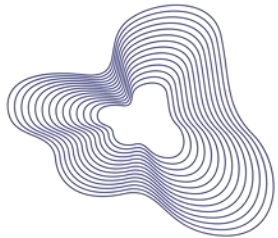
Graduation

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.



Initial Mission Focus Areas

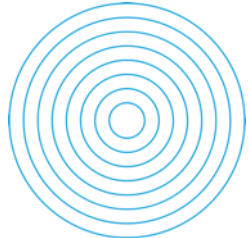
Further ARPA-H investment in these areas will generate **asymmetrical benefits** to the health ecosystem



Health Science Futures

Expanding what's technically possible

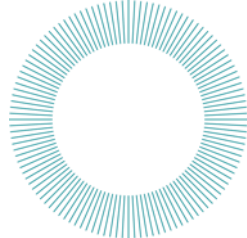
Accelerate advances across research areas and remove limitations that stymie progress towards solutions. These innovative tools, technologies and platforms apply to a broad range of diseases.



Scalable Solutions

Reaching everyone quickly

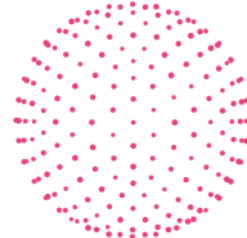
Address health challenges that include geography, distribution, manufacturing, data and information, and economies of scale to create programs that result in impactful, timely, and equitable solutions.



Proactive Health

Keeping people from being patients

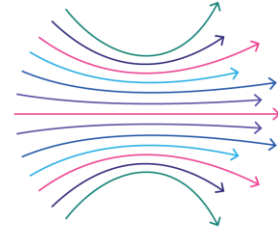
Preventative programs will create new capabilities to detect and characterize disease risk and promote treatments and behaviors to anticipate threats to Americans' health, whether those are viral, bacterial, chemical, physical, or psychological.



Resilient Systems

Building integrated healthcare systems

Develop capabilities, business models, and integrations to endure crises such as pandemics, social disruption, and economic instability. Resilient systems need to sustain themselves between crises - from the molecular to the societal - to better achieve outcomes that advance American health and wellbeing.



Project Accelerator Transition Innovation

Ensuring programs survive in the wild

Translating scientific and technical breakthroughs into real world products and services, ensuring they result in better health outcomes for all Americans

Performance and Reliability Evaluation for Continuous Modifications and Useability of Artificial Intelligences (PRECISE-AI)

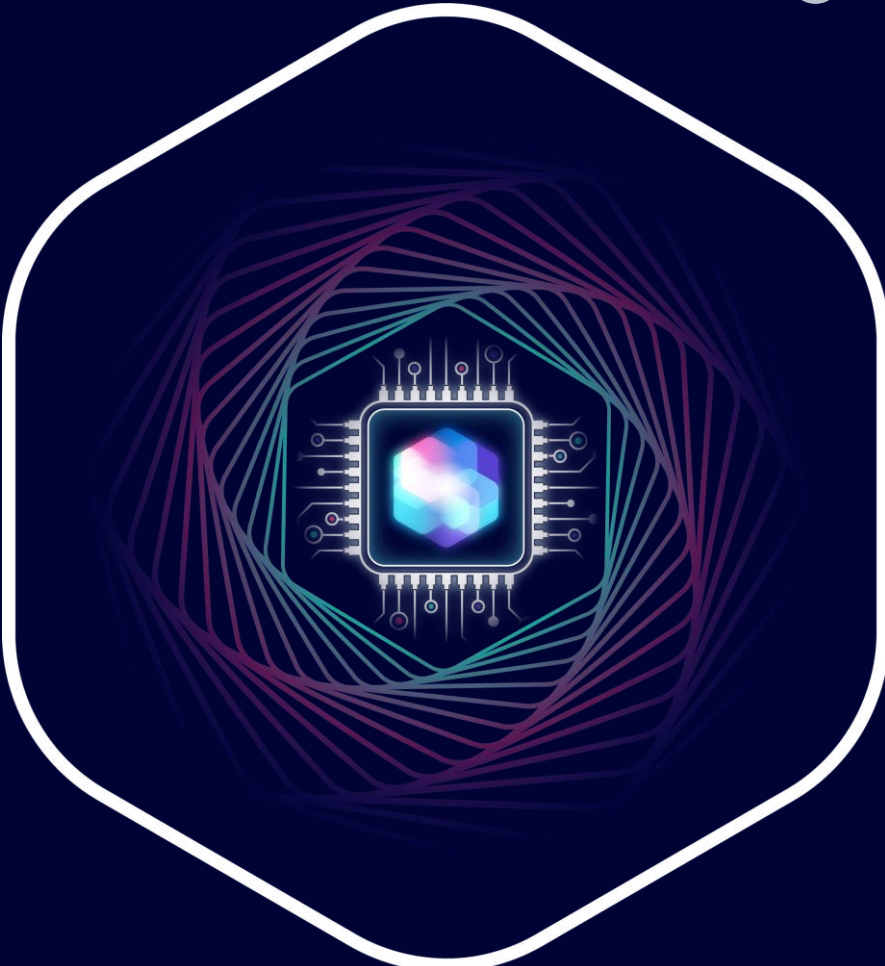
Vision: Develop capabilities that can automatically detect and mitigate AI model degradation in clinical settings.

Technology focus areas:

- Automatically extract and integrate data across clinical use cases to establish a “ground truth” about each patient.
- Continuously monitor model performance, determine root causes of degradation, and suggest or make automatic corrections when needed.
- Quantify uncertainty and improve clinical outcomes by finding novel ways of communicating model uncertainty and complementary measures to clinicians, developers, and other stakeholders.
- Aggregate and share data across medical institutions and across performers to advance development of other technical areas.
- Confirm the progress made by all the technical areas by performing independent verification and validation.

Key Dates

- Program launch: August 29, 2024
- Proposers Day: October 16 or 17, 2024

A large graphic on the right side of the slide. It features a central, glowing blue and purple square with a hexagonal pattern inside, resembling a microchip or a neural network node. This central element is surrounded by a complex, multi-layered structure of thin, overlapping lines in shades of purple, blue, and teal, creating a sense of depth and complexity. The entire graphic is enclosed within a white, rounded hexagonal border.

What if AI models in health care
autocorrected to maintain peak clinical
performance?

Democratized Engineering of Cells Informed by Dynamic Evidence (DECIDE) Exploration Topic

Vision: The CARE Exploration Topic aims to advance new quality assurance technologies and accelerate the collection of evidence necessary to establish reimbursement pathways for rare disease therapies. If successful, ARPA-H believes the work in this arena would increase patients' access to life-changing therapies from Academic Medical Centers (AMCs).

Technology focus areas

TA1.1: Method development

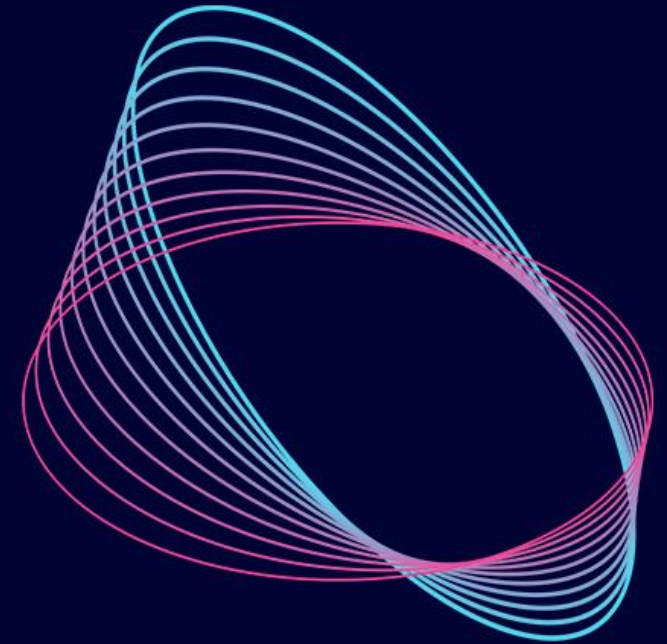
TA1.2: Testing and prototyping

TA1.3: Deployment and validation

Proposals due: November 18, 2024, at 12:00pm ET



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DECIDE Exploration Topic

Engage with ARPA-H



Submit your Project Idea

Calling for proposals to outline breakthrough research and technological advancements to improve health outcomes across patient populations, communities, diseases, and health conditions



Become a Program Manager

ARPA-H is seeking to hire Program Managers that will bring well-defined problems to ARPA-H and build the teams to solve them.



Keep Up to date with the ARPA-H Vitals Biweekly Newsletter



Collaborate with Us

We want to partner with State and Federal governments, community health centers, patients, caregivers, patient advocate groups to ensure we are delivering on our mission