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Vice President for Research

ARPA-H Today:

An up-to-date overview of the organization, its programs, Emory's lessons learned, and... more!

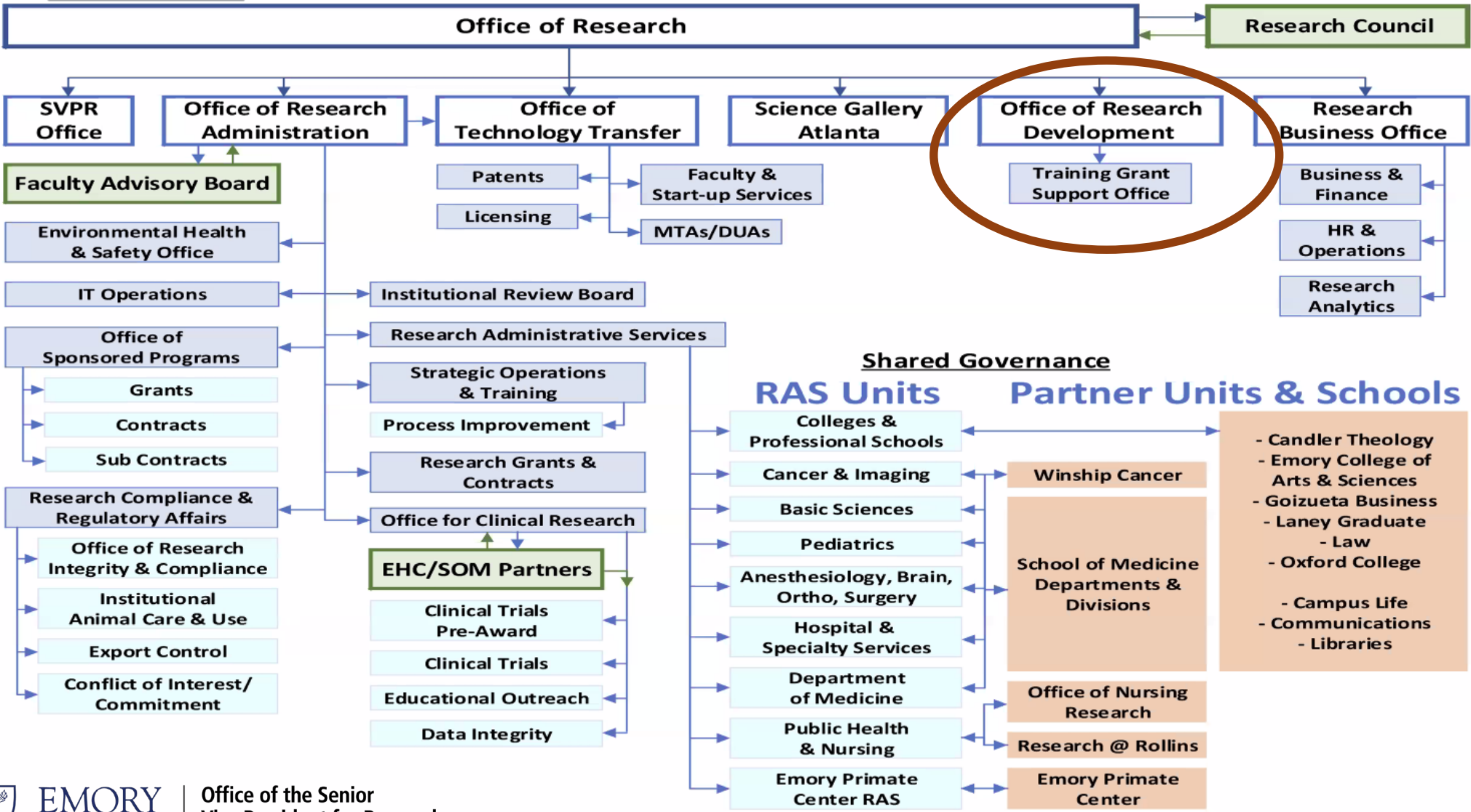
Erica Pitre

SVPR Office of Research Development

March 21, 2024



The Office of Research Development???



What the Heck is an ARPA?

Do as much as you can, as fast as possible.



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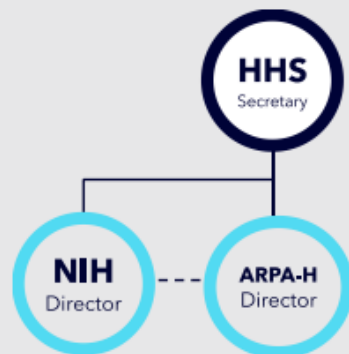
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ARPA-H: A Snapshot

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 within NIH; not an Institute
- No internal research labs; **disease agnostic**
- **\$2.5B appropriations**; budget independent from NIH
- Generally **fund outcome-based contracts**, not grants; accelerated award timelines
- **Bottoms-Up Problem Centric Approach** to address the toughest challenges in health



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. PMs have autonomy to make decisions quickly.

ARPA-H is a problems focused organization



Program Managers

- PMs given resources and authority to select a portfolio of projects that pursue multiple approaches to achieve a clearly defined goal
- PMs recruited from industry, top research universities & NIH and must bring bold, risky ideas
- PMs are on loan to ARPA-H for 3 years (with up to 3-year extension) and then return to permanent position
- Generally, will cover salary up to \$400,000
- Lots of travel, but PMs are not required to officially relocate
- PMs will need to “retire” their grant work to work at ARPA-H
- ARPA-H is actively recruiting PMs; current target is 30
- Currently 14 PMs in place & not all have launched programs



Andrea Bild
Program Manager, Resilient Systems



Andrew Carney
Program Manager, Resilient Systems



Daria Fedykina
Program Manager, Health Science Futures



Jessica Green
Program Manager, Resilient Systems



Ileana Hancu
Program Manager, Health Science Futures



Andy Kilianski
Program Manager, Health Science Futures



Bon Ku
Program Manager, Resilient Systems



Kent Matlack
Program Manager, Health Science Futures



Calvin Roberts
Program Manager, Health Science Futures



Darshak Sanghavi
Program Manager, Resilient Systems



Paul E. Sheehan
Program Manager, Resilient Systems



Ryan Spitzer
Program Manager, Health Science Futures



Kimberley Steele
Program Manager, Health Science Futures



Ross Uhrich
Program Manager, Health Science Futures



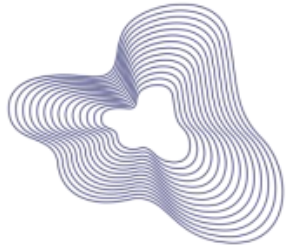
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Mission Offices

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 tools and platforms apply to a broad range of diseases.



Scalable Solutions

Reaching everyone quickly

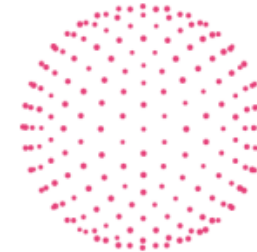
Address health challenges that include geography, distribution, manufacturing, data and information, and economies of scale to create programs that result in impactful, timely, and equitable solutions.



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

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

1st ARPA-H
award went
Emory

ARPA-H's Investment Portfolio Snapshot: What if...?



NITRO

Novel Innovations for Tissue Regeneration in Osteoarthritis

What if we could make our joints heal themselves?



REACT

Resilient, Extended, and Automated Cellular Therapies

What if your body could make its own medicine?



SPIKEs

Synthetic Programmable Bacteria for Immune Directed Killing in Tumor Environments

What if programable bacteria could be directed to kill cancer inside the body?



DIGIHEALS

Digital Healthcare Security

What if we had resilient healthcare infrastructure with advanced digital security for data, software, and devices?



PSI

Precision Surgical Interventions

What if surgeries fixed problems flawlessly, the first time?



PARADIGM

Platform Accelerating Rural Access to Distributed and Integrated Medical Care

What if we could deliver advanced hospital-level care to every rural county in America?



HEROES

Healthcare Rewards to Achieve Improved Outcomes for All


What if we could create a sustainable national healthcare market that rewards prevention?



DARTS

Defeating Antibiotic Resistance through Transformative Solutions

What if we could identify antibiotic-resistant bacteria in minutes?



CUREIT

Curing the Uncurable via RNA-Encoded Immunogene Tuning

What if incurable diseases could be treated by tuning your immune system?



THEA

Transplantation of Human Eye Allografts

What if we could cure blindness?




Emory University Received 1st ARPA-H Award

New federal agency selects Emory as first recipient of funding to drive groundbreaking health research

Aug. 23, 2023

AUGUST 23, 2023

As Part of President Biden's Unity Agenda, Biden Cancer Moonshot Announces Launch of ARPA-H's CUREIT Project Led by Emory University to Develop New Tools to Strengthen the Immune System and Save Lives

 BRIEFING ROOM STATEMENTS AND RELEASES

New ARPA-H project aims to improve patient outcomes across cancer and a broad range of diseases, using mRNA technology to train our immune systems to be more effective

Today, the Biden Cancer Moonshot is announcing the launch of "Curing the Uncurable via RNA-Encoded Immunogene Tuning" (CUREIT), a project that aims to develop generalizable mRNA platforms that can be harnessed to train the immune system to more effectively fight cancer and other diseases, ultimately saving lives. CUREIT will be led by a team at Emory University in Atlanta, Georgia, with up to \$24 million in new funding from the Advanced

Emory University to lead federal research with a goal of curing cancer



Date Awarded
August 23, 2023

Amount Awarded
Up to \$24M


Prime Awardee Institution
Emory University

Principal Investigator
Philip J. Santangelo, Ph.D.

Location
Atlanta, GA





Renee Wegrzyn • Following

Inaugural Director, Advanced Research Projects Agency for Health ...
20m • 

We are thrilled to announce our first award from the **Advanced Research Projects Agency for Health (ARPA-H)** Open BAA. This bold effort - named CURE-IT - seeks to enhance they body's immune system through gene modulation to treat some of the toughest diseases, including cancer and autoimmune disorders like lupus. Congrats to **Philip Santangelo Emory University** and teams!

[#thepatientsarewaiting](#)

  You and 24 others



Program Lifecycle

From ideas to solutions in the real world



DESIGN PROGRAMS

- ARPA-Hard and well-defined problems in health
- Heilmeier Framework
- High risk/High consequence
- Stakeholder Insights

BUILD A PERFORMER TEAM

- Solicit Solutions from the community
- Find the best non-traditionals, industry, and academics to solve
- Build new coalitions

EXECUTE & MEASURE

- Active program management against metrics; PM = CEO
- Stakeholder engagement throughout to ensure transition
- Pivot resources when needed

LEARN & GROW

- Capture and share insights
- Technical honesty
- Advance the state of the art; 10x+ improvement, no incremental change

COMMERCIALIZE & TRANSITION

- Assist company formation or licencing
- Provide mentorship, connections to customers, investors
- De-risk investments

Approved for Public Release: Distribution Unlimited



Program Formation: Emory's Perspective

Program Manager

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



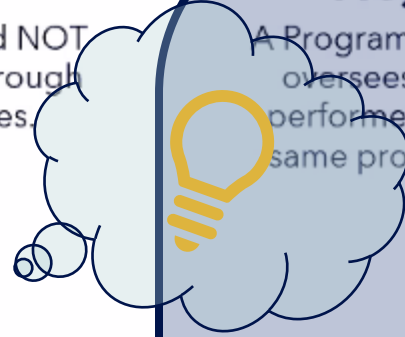
Challenge

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



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Program Formation: Emory's Perspective

Program Launch

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



Submission process is at PM's discretion

- Abstract submission phase (required and/or recommended)
- ARPA-H review of abstracts
- Invitations or encouragement to submit full proposals issued (detailed & individualized feedback; do NOT submit if not invited or encouraged)
- Lots & lots & lots of work
- Full Proposals Submitted

Launch process VARIES!

- Special Notice
- Draft solicitation issued (includes anticipated Abstract due date)
- Proposer's Day Held (hybrid)
- Final solicitation issued

Performers

Performers compete to carry out their potential innovative solutions to the challenge



Awarded
\\ or ///

Not Awarded

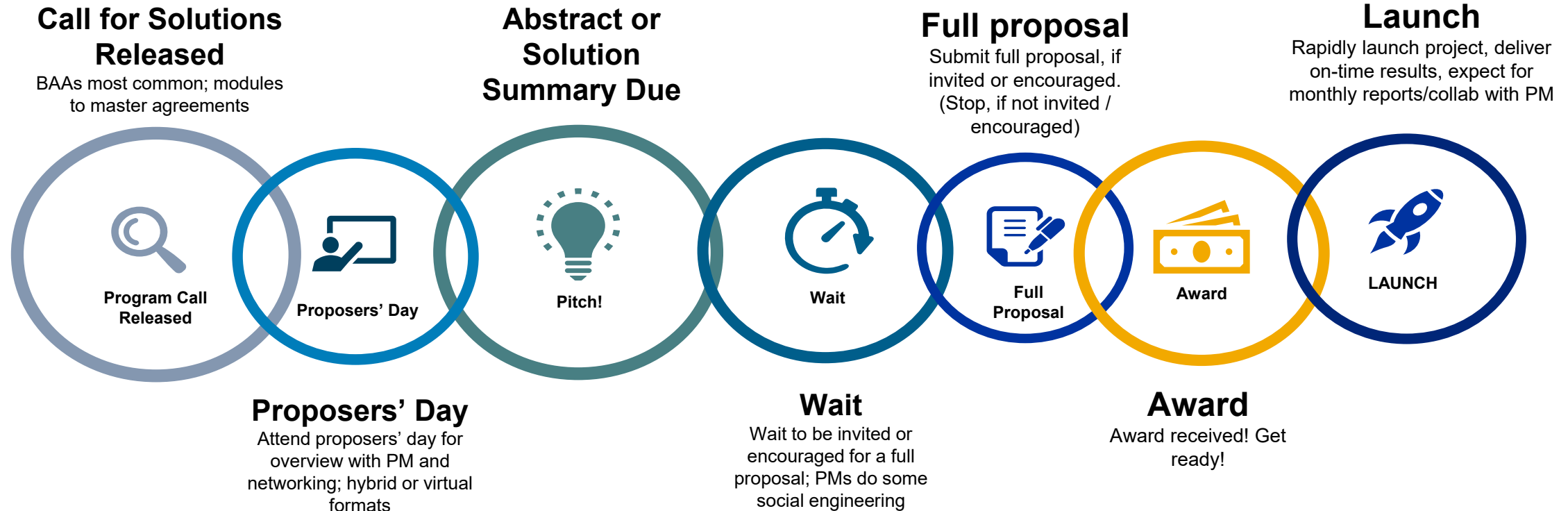


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ARPA-H Applicant Process



Programmatic Timeline in Action: ADAPT

ADAPT

ADvanced Analysis for Precision
cancer Therapy



Solicitation

[ADAPT Special Notice](#)

[ADAPT Solution Summary](#)

Solution Summary due date: March 29, 2024, 10:00 AM ET

[ADAPT Module Announcement](#)

Proposal due date: May 6, 2024, 1:00 PM ET

Proposers' Day

Virtual Proposers' Day will be held 12:00PM – 2:00 PM ET on
March 15, 2024.

[Proposers' Day registration](#) is closed.

[Ask a Question](#)

[Proposers' Day recording](#)

[Proposers' Day slides](#)

Programmatic Timeline in Action: PARADIGM

PARADIGM

Platform Accelerating Rural Access to
Distributed and Integrated Medical
Care

Solicitation

[PARADIGM Special Notice](#)

[PARADIGM Draft Solicitation](#)

Abstract Due Date: Closed

Full Proposal Due Date: April 26, 2024

Proposers' Day

Proposers' Day: February 15, 2024, 9:00 AM – 4:00 PM MST
(11:00 AM – 6:00 PM EST) in Phoenix, AZ and virtually

[Proposers' Day registration](#) is closed.

[Ask a Question](#)

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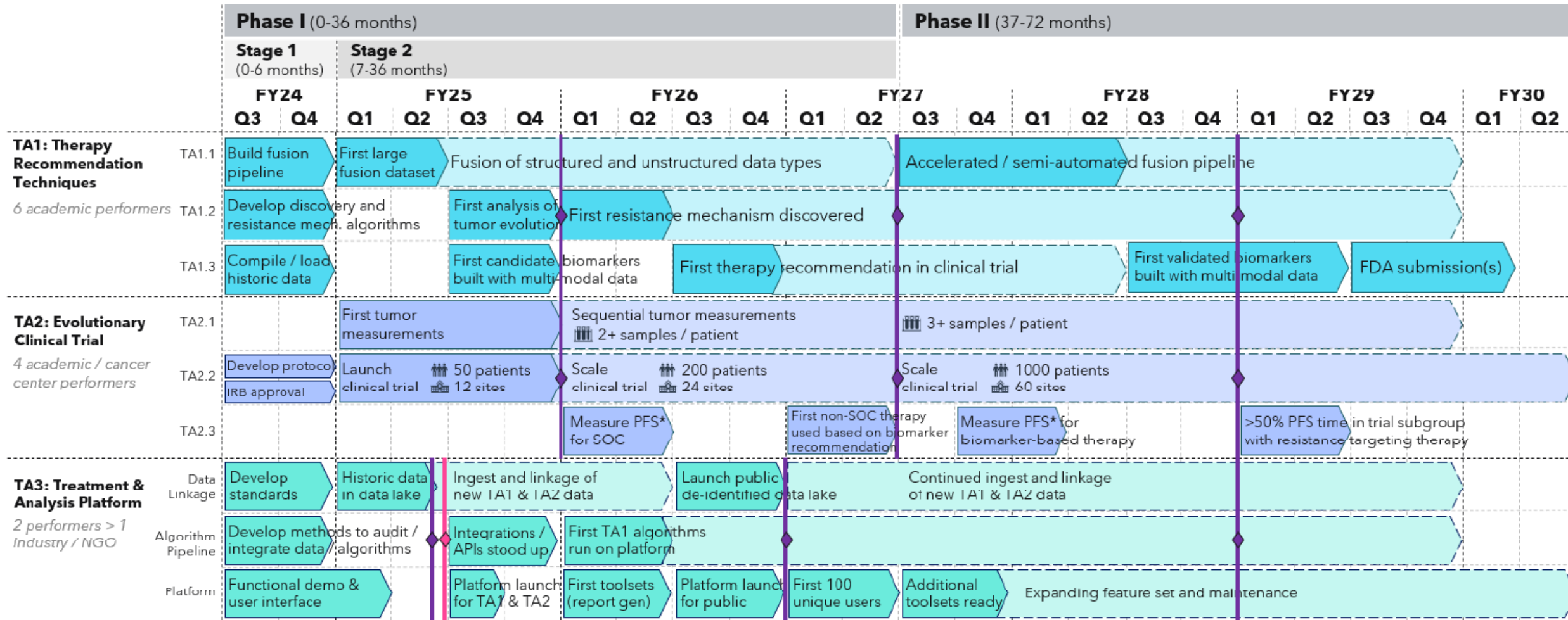
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ARPA-H ♥s Project Management

- ◆ Independent Verification & Validation
- ◆ Performer Down-select



*PFS = Progression free survival



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Emory Post-Submission Insights

Research Team Tips from ORD:

- **DO** let your research administration team know you submitted an ARPA-H abstract ASAP
- **DO** take advantage of ARPA-H’s “optional” abstract & solution summary deadlines – three to five pages can save a lot of work and heartache down the line!
- **DO** heed ARPA-H’s feedback & advice – they know what they want
- **DO** keep Emory support offices in the loop (contracts, OTT, RCRA, etc.) when preparing a full proposal
- **DO** your due diligence – don’t propose work ARPA-H has already done or ignore targeted objectives
- **DO** read the full solicitation 75,852,379 times
- **DO** use the “village” – full ARPA-H submissions are not a one-person show; ask for & fully utilize your team and resources
- **DO** move quickly & work to find the optimal balance between orchestrating the science and back office processes required to submit such a large proposal



ARPA-H: Support & Performance Model



Support

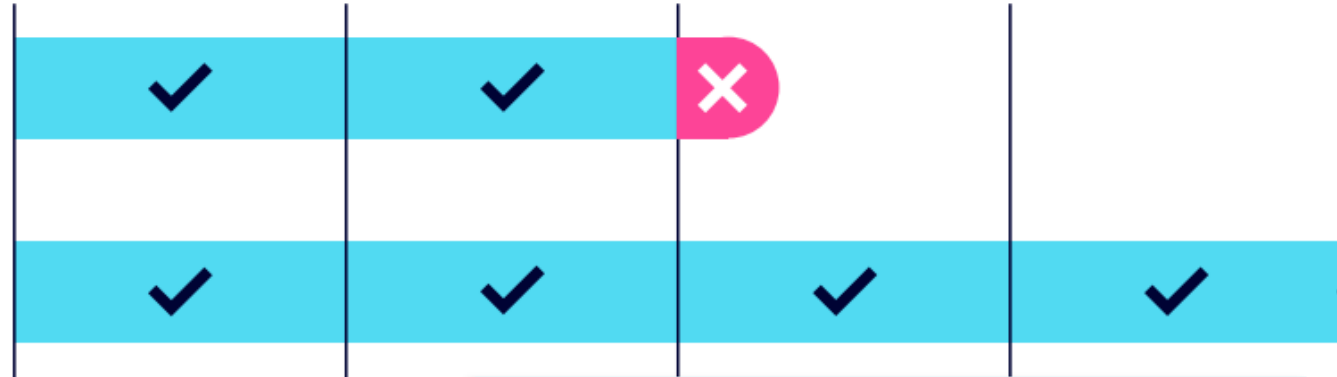
ARPA-H will provide contracts - not grants - for projects with well-defined endpoints. Additional support will be provided by Program Managers, partners, and ARPA-H offices to ensure the best chance of success throughout the process.



Performer



Performer



Performer



Performance

Contract performance will be regularly evaluated to allow ARPA-H to concentrate resources on the most effective approaches to reaching the desired goals. Valuable lessons are learned and shared from each project.



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Currently Open



HEROES

Health care Rewards to Achieve Improved Outcomes

Darshak Sanghavi, M.D.



ADAPT

ADvanced Analysis for Precision cancer Therapy

Andrea Bild, Ph.D.

[View Program Details](#)



PARADIGM

Platform Accelerating Rural Access to Distributed and Integrated Medical Care

Bon Ku, M.D., MPP

**Mission Office
Innovative
Solutions
Openings**



**Sprint for
Women's Health** 



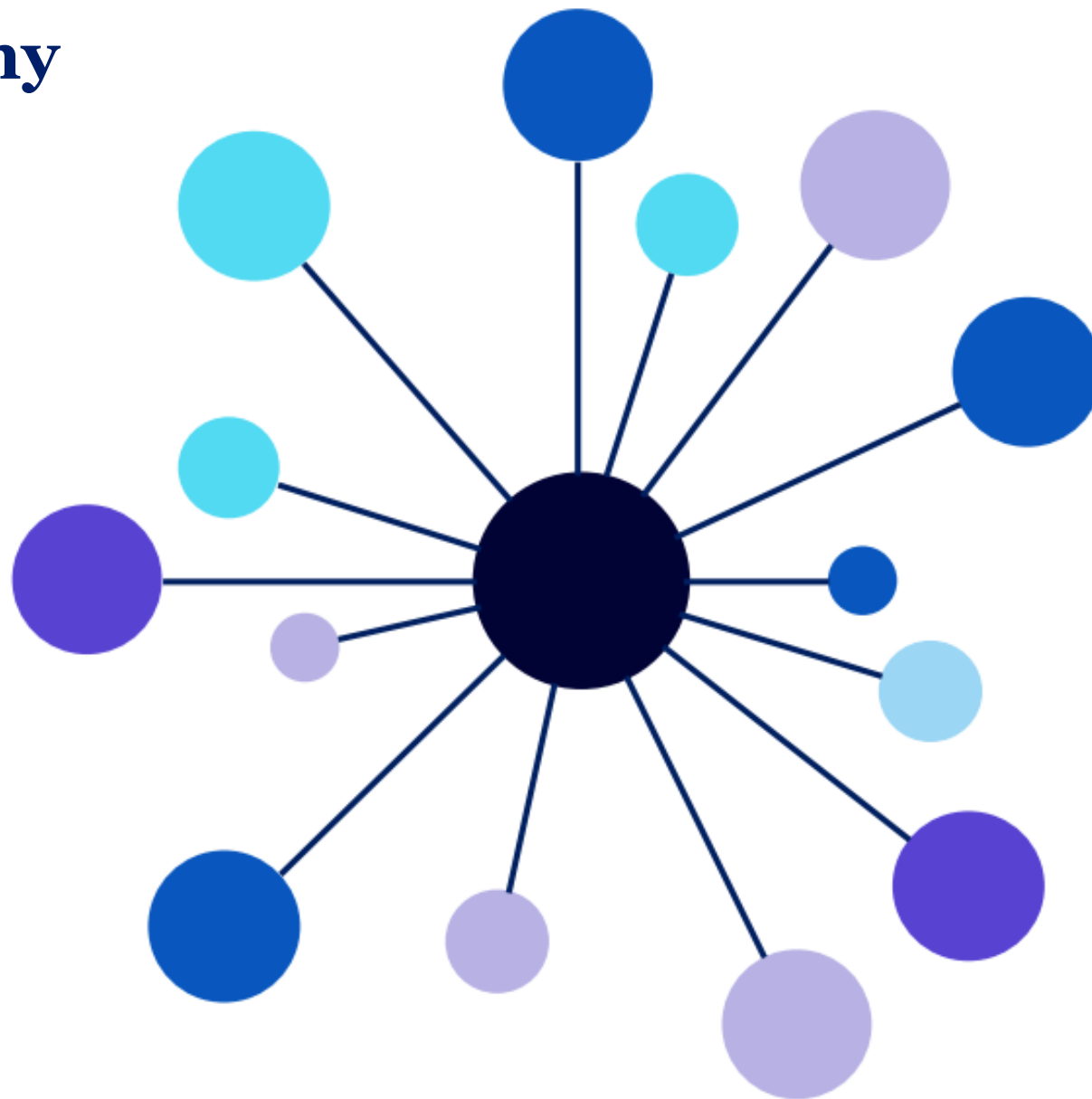
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Hubs & Spokes



Hub & Spoke Philosophy



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ARPANET-H

ARPA-H Health Innovation Network



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Awesome! What Does That Mean?

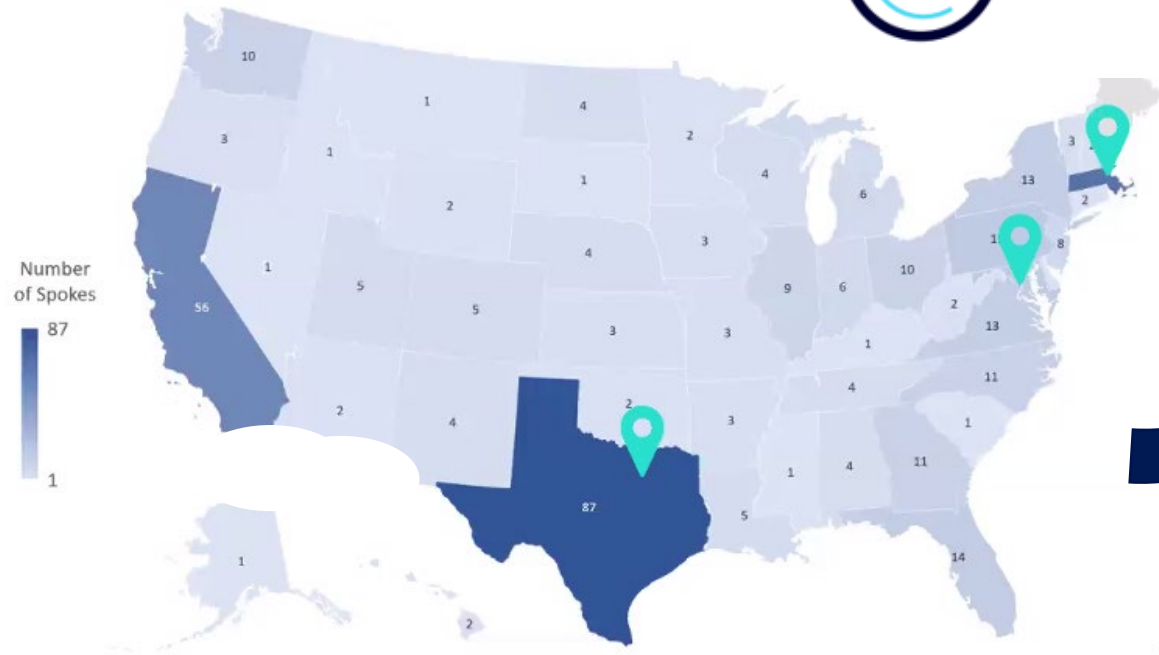


ARPA-H Investor Catalyst Hub
PART OF THE ARPANET-H HEALTH INNOVATION NETWORK

VENTUREWELL™

ATI
ADVANCED TECHNOLOGY INTERNATIONAL

ARPA-H Customer Experience Hub
PART OF THE ARPANET-H HEALTH INNOVATION NETWORK

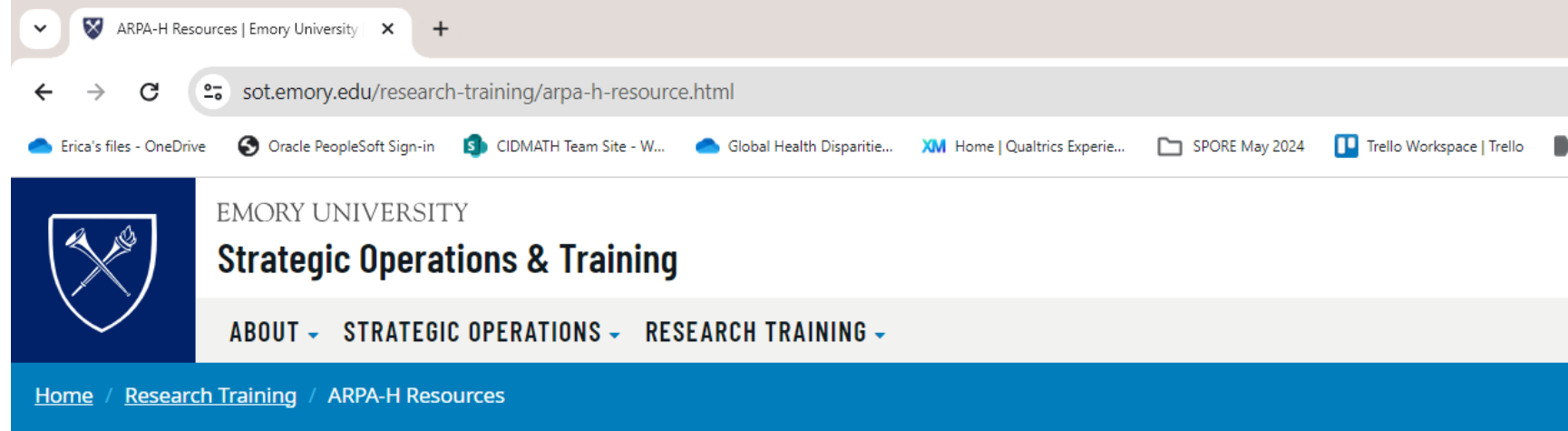


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Emory Resources for Support Offices



ARPA-H Resources



The Advanced Research Projects Agency for Health (ARPA-H) is a research funding agency that supports high-impact research in support of transformative, sustainable, and equitable biomedical and health solutions for everyone.

ARPA-H Program Links

[ARPA-H WEBSITE](#)



ARPA-H Videos



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Questions?

Contact:

ResearchDevelopment@emory.edu

Erica Pitre

epitre@emory.edu

ARPA-H PM Interest?

Kimberly Eck, Sr. AVP Research

keck@emory.edu

