

# Advanced Research Projects Agency for Health (ARPA-H): A New Paradigm for Biomedical and Health Research



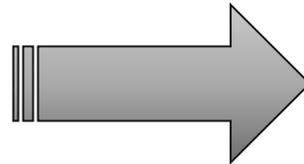
# The Opportunity

- **Moment of unprecedented scientific promise...**
  - Cancer immunotherapies
  - Highly effective COVID-19 vaccines developed and approved in ~11 months
- **Challenges us to ask:**
  - What more can we do to accelerate the pace of breakthroughs in medicine and health?
  - How can we revolutionize prevention, treatment, or cure of cancer, infectious diseases, Alzheimer's disease, and other diseases?
  - How can we transform healthcare access, equity, quality, and reduce health disparities?

# President Biden's Joint Address to Congress

April 28, 2021

*"We will see more technological change in the next 10 years – than we saw in the last 50 years. And we're falling behind in that competition. ... The National Institutes of Health, the NIH – should create an ... **Advanced Research Projects Agency for health**. To develop breakthroughs – to prevent, detect, and treat diseases like Alzheimer's, diabetes and cancer. ... I can think of no more worthy investment. And I know of nothing more bipartisan."*



FY22 budget request: **\$6.5B** available over three years

# Draft Mission

To make **pivotal investments in break-through technologies** and broadly applicable platforms, capabilities, resources, and solutions that have the potential to **transform important areas of medicine and health for the benefit of all patients** and that cannot readily be accomplished through traditional research or commercial activity

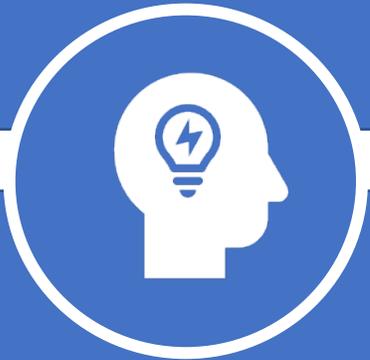
# Goals

- Build **capabilities and platforms** to revolutionize prevention, treatment, and cures in a **range of diseases**
- Convert **use-driven ideas** into tangible solutions for patients far more rapidly than previously believed possible
- Speed application and implementation of **health breakthroughs** to serve all patients
- Foster breakthroughs across various levels – from **the molecular to the societal**
- Overcome market failures through **critical solutions or incentives**

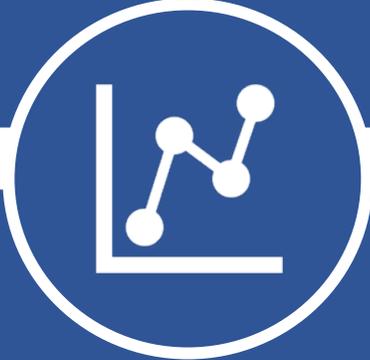
*Many areas are ripe for transformation with right support, collaboration*

# Culture

**Linked to NIH – draw on vast knowledge, expertise, and infrastructure, but remains distinct, with unique culture and organization**



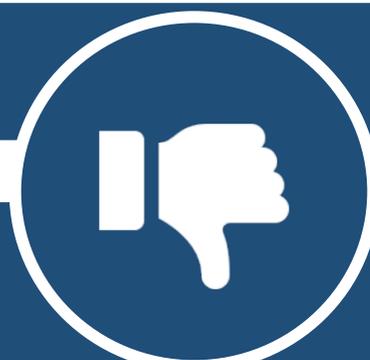
Seek the best ideas and people



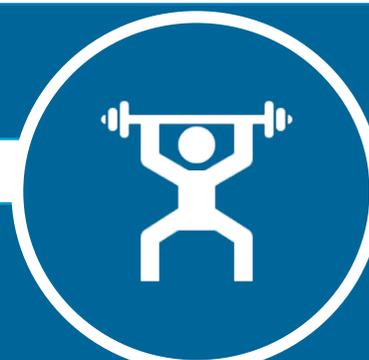
Be nimble



Be open and transparent



Fail early



Own it!

# Structure

## **Centered around ensuring risk tolerance, urgency, nimbleness, and innovation**

- Flat, dynamic organization
- Term-limited director with technical and leadership skills
- Creative, diverse cohort of program managers recruited for short terms with broad autonomy to drive transformational change
- Time-limited projects with goals, quantifiable metrics, and accountability
- Distinct project review and selection processes
- Equity considerations through targeted programs and inclusion in all programs
- Collaborations with performers in academia, industry, government (including ICs)

# Authorities Needed to Accomplish Mission

- **Rapid hiring outside civil service system with competitive wages**
- **Recruiting expert project managers for short, 3-5 years terms**
- **Broad, flexible funding authorities**
  - Mix and match ideas with minimal bureaucracy
  - Projects that don't fit neatly into one-year intervals
  - Funding distribution over multiple years
  - Mechanism to challenge teams to compete
- **Exemptions from traditional review processes**

# Conclusions

- Many areas ripe for transformation with right support and collaboration
- Potential opportunity to shape the future of health and medicine and improve the health of Americans is extraordinary!