

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



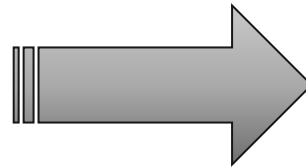
The Opportunity

- **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!