

Creating the Health Advanced Research Projects Agency (HARPA/ARPA-H)

Michael Stebbins, Ph.D.

The time for HARPA is now

There are ~10,000 human diseases. We only have interventions for ~500.

There is a massive market failure in the middle of the biomedical research enterprise.

Current Federal investment strategies do not adequately address the Valley of Death.

HARPA would do for health what DARPA does for defense. That is, to specifically create and deliver clinical solutions.

HARPA would bring a different set of tools, approaches and focus to the development of new platform technologies and capabilities to transform medical innovation.

Time-bound, milestone-driven innovation is a proven approach for driving innovation.



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The federal government can directly address the massive market failures at the center of our healthcare enterprise by establishing a new Health Advanced Research Projects Agency (HARPA/ARPA-H) modeled after the Defense Advanced Research Projects Agency (DARPA)

The government has already created agencies with such capabilities for infectious disease, energy, homeland security, and the intelligence community.

DARPA

- Established in 1958.
- Responsible for the Internet, Stealth technologies, RADAR, GPS navigation, night vision, autonomous vehicles, and the Moderna Vaccine.
- Designed to make pivotal investments in breakthrough technologies for national security and directly address market failures that are impeding innovation.

How would HARPA complement the NIH?

- NIH funds basic science and clinical research through grants. Grants are typically awarded to individual projects at academic institutions. Collectively, these projects form the bedrock of our knowledge about biology, health, medicine, and disease.
- HARPA will provide the sustained drive needed to push through challenges and achieve medical breakthroughs by building new platform technologies.
- The U.S. healthcare system largely relies on the private sector to leverage national investments in basic research and develop commercially available treatments and cures.
- This model means that diseases for which investments are risky or downstream profit potential is low are often ignored.
- HARPA will step in where private companies do not, addressing market failures with direct investments that ensure that all patients have hope for a brighter future.

How would HARPA function?

- Contracts large enough to provide a critical mass of funding.
- Minimal bureaucracy.
- “Portfolio approach” to high-risk, high-reward efforts.
- Government control of contracts.
- Top-notch talent. (DARPA attracts world-class PMs)
- High turnover.

The not-so-secret sauce.

All funding allocations would be left to the discretion of the HARPA Director

All funding oversight would be entrusted to HARPA PMs.

Funds would be awarded as milestone-driven contracts that give PMs the capacity for early termination if a particular project is not yielding desired results.

This almost never happens with traditional federal grants for research and development.

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